

BARRIERS TO THE CLEANUP OF ABANDONED MINE SITES

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WATER RESOURCES AND ENVIRONMENT
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TRANSPORTATION AND
INFRASTRUCTURE
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BARRIERS TO THE CLEANUP OF ABANDONED MINE SITES

Thursday, March 30, 2006,

HOUSE OF REPRESENTATIVES, COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE, SUBCOMMITTEE ON WATER RESOURCES AND ENVIRONMENT, WASHINGTON, D.C.

The committee met, pursuant to call, at 10:00 a.m., in Room 2167, Rayburn House Office Building, Hon. John J. Duncan, Jr. [chairman of the committee] presiding.

Mr. DUNCAN. I want to first of all welcome everyone to our hearing today. This hearing is on barriers to the cleanup of abandoned mine sites around the Country. Hopefully we will hear about potential ways to encourage volunteers to help clean up these sites.

Past mining activities which occurred when mining practices were less sophisticated than today have disturbed hundreds of thousands of acres of land, altered drainage patterns and generated substantial amounts of waste scattered around the landscape. Today there are several hundred thousands of these old mine sites in the U.S., staff briefing memo say about half a million. Many of these mines were abandoned by the owners or operators a long time ago, when the remaining minerals became too difficult or costly to extract.

Although operated consistent with the governing laws at the time, many of these abandoned mines now pose environmental and health threats to surrounding surface and groundwaters and to downstream interests. Nationally, tens of thousands of miles of streams are polluted by acid mine drainage and toxic loadings of heavy metals leeching from many of these old mines, impacting fisheries and water supplies.

State and Federal agencies have worked to remedy these problems, but the number of sites and the expense involved has made progress very slow. A lot of these old mine lands lack a viable owner or operator with the resources to remediate them. Many others are truly abandoned, with no identifiable owner or operator to hold responsible. As a result, few of these old mine sites are getting cleaned up.

Public or private volunteers are Good Samaritans, have been willing to partially remediate many of these sites. These Good Samaritans may be driven by a desire to improve the environment, others may want to improve water quality at their water supply source. Still others may want to clean up an old mine site for the purpose of re-mining the area or developing it in some other way.

However, most Good Samaritans have been deterred from carrying out these projects by the risk of becoming liable for complete cleanup required by various environmental laws. This is because current Federal law does not allow for partial cleanups. For example, if a Good Samaritan steps in to partially clean up an abandoned mine site, that party could become liable under the Clean Water Act or Superfund for a greater level of cleanup and higher costs than the party initially volunteered for. Because they could face the legal consequences if they fall short of complete cleanup, most potential Good Samaritans refrain from attempting to address a site's pollution problems at all.

Federal policy should encourage and not discourage parties to volunteer themselves to clean up abandoned sites. We should consider whether in some circumstances environmental standards should be made more flexible in order to achieve at least partial cleanup of sites that otherwise would remain polluted.

This is not about letting polluters off the hook. They should remain responsible under existing law. However, if a party unconnected to an abandoned mine site steps forward to help with remediation, everyone wins. I believe there is little disagreement that encouraging volunteers to clean up abandoned mine sites is a worthwhile policy.

However, in exploring the details of such a policy a number of issues arise, such as who should be eligible for a lower standard of cleanup; how should new standards be applied; and how should potential re-mining of these sites be addressed. To help us identify and address these and other issues, we have assembled a number of parties who have been actively involved in the debate over how to address the abandoned mines problem in the Country. I hope our witnesses will bring forward ideas on how we can remove impediments to abandoned mine cleanups and get more Good Samaritans to step forward.

When I chaired the Aviation Subcommittee, we produced the first Good Samaritan law for the skies. In addition, we have done some movements in this direction in brownfields legislation that we passed through this Subcommittee a few years ago. I look forward today to an educational and enlightening hearing. I appreciate very much the witnesses who have come here today, all of our witnesses. Our most distinguished and prestigious witness, Mr. Grumbles, from the EPA, who has been with us many times before and of course, the other State witnesses who have come long distances to be here in some cases.

Let me now turn to my distinguished Ranking Member, Ms. Johnson, for any opening statement she wishes to make.

Ms. JOHNSON. Thank you very much, Mr. Chairman, and thank you for holding this hearing.

Today we receive testimony from a wide spectrum of parties and interests who all have a common goal of improving the environmental situation associated with abandoned and inactive mines. I share that goal.

I must say that I find it somewhat ironic that we are considering legislative proposals to scale back environmental standards in order to achieve improvements in water quality. But that is where

we find ourselves. Existing programs that could address mine runoff are either inadequately funded or inadequately enforced.

The Administration and the Republican-led Congress have reduced funding for water quality under the Clean Water Act both for point and non-point pollution controls. They have also refused to reinstate funding for cleanup of toxic releases under the Superfund program, so now we look to volunteers where the Government will not help.

Within this reality, I believe that we can fashion a legislative proposal that focuses upon areas of common ground and avoids areas that are divisive. Today's hearing will help identify those areas of common ground.

But in all of our years of examining this issue, I believe that some common themes are already apparent. We should make the focus water quality improvement and let other laws address mining operations. We will need to define who can be a Good Samaritan. But other than excluding responsible parties, we should encourage all volunteers. A threshold level of remediation should be a measurable improvement in water quality, with no diminishing of water quality allowed. We must recognize the legitimate role of States and Tribes in implementing the Clean Water Act and ensure that the rights of the public to fully participate in the permitting process are preserved.

Abandoned, inactive mines are a major source of uncontrolled pollution in America's waters, particularly in the western States. This Committee has been talking about doing something to encourage volunteer efforts to improve water quality for nearly 15 years. Hopefully, this is the year we can get something enacted. I look forward to the testimony today.

Ms. JOHNSON. Mr. Chairman, before I relinquish the mic, I want to ask unanimous consent to put into the record a statement by Congressman Tim Holden, who has a conflict and could not be here this morning. But he has a very complete statement.

Mr. DUNCAN. Thank you very much, Ms. Johnson, and Congressman Holden's full statement will be placed into the record.

Dr. Boozman.

Mr. BOOZMAN. Thank you, Mr. Chairman, and thank you to you and the Ranking Member for holding this hearing. The title of our hearing today is Barriers to the Cleanup of Abandoned Mine Sites. I would like to go on the record that I think one of the barriers will be if this effort to make chicken litter meet the definition of hazardous waste succeeds. You would be surprised, your grandfather would be surprised, Chairman Duncan, that the farm that he lived on, with the barnyard manure, was a hazardous waste site.

We have limited resources to address cleanup sites, such as abandoned mines. So I hope that we can address the problem with trying to make manure a hazardous waste at some time. And again, not waste our resources in efforts like that that are totally ridiculous. We should not use the funding, the resources that we have, in ways like this. Instead, we should try to use them in logical ways to actually deal with legitimate problems, such as abandoned mines.

Thank you.

Mr. DUNCAN. Well, I certainly agree with you there. Good statement.

Mr. Salazar.

Mr. SALAZAR. Thank you, Mr. Chairman. I want to thank both you and the Ranking Member for holding this hearing today.

Since enacting the Clean Water Act, our Nation has made significant progress in improving our water quality around this Country. One are that we need to make significant improvements, I believe, is in the pollution of abandoned mine sites. As you know, the settlement of the west was driving by mining. Mining has and continues to be a critical part of our development across the west.

We also have to remember that severe environmental consequences can accompany mining. This rings true especially in the earlier ways that mining activities were conducted. I believe that the current system in place creates a disincentive for parties from attempting to voluntarily clean up these mine sites.

Today, I plan on introducing legislation that would form a pilot project that would allow Good Samaritans to clean up the Animus River Basin. This bill will be introduced with the support and comments of local communities in the Animus River Basin.

The objective of the bill is to allow those parties the necessary tools to attempt to clean up the waters of the Animus River as well as using it for a model for our Nation to see what works and what does not work. I would urge my colleagues to support this bill and help make it a reality. I think we need to go forward with some piece of legislation. This problem has been around for a very long time and the public is looking to Congress for answers.

In closing, I look forward to hearing testimony from the two panels, and I want to thank the panel participants and once again, the Chairman and the Ranking Member.

Mr. DUNCAN. Thank you very much, Mr. Salazar. We will be happy to work with you on that, your proposed legislation, too.

Our first panel this morning is led off by the Honorable Benjamin H. Grumbles, who is Assistant Administrator for Water from the U.S. Environmental Protection Agency. We also will have testimony from three State witnesses. Representing the Western Governors Association is Mr. Paul Frohardt, Administrator of the Colorado Water Quality Control Commission from Denver, Colorado.

We have representing the Interstate Mining Compact Commission Mr. Joseph Pizarchik. Mr. Pizarchik is the Director of the Bureau of Mining and Reclamation of the Pennsylvania Department of Environmental Protection from Harrisburg, Pennsylvania.

And we have representing the East Bay Municipal Utility District Mr. Dave Williams, Director of Wastewater for Oakland, California.

Gentlemen, we are happy and pleased that all of you are here with us. Administrator Grumbles, you may begin your statement. All of your full statements will be placed in the record. The rules of the Committee are you are given five minutes, but in this Subcommittee we give you six minutes. But in consideration of the other witnesses, if you see me start to wave this, that means to bring your statement to a close.

Thank you very much. Administrator Grumbles.

**TESTIMONY OF THE HONORABLE BENJAMIN H. GRUMBLES,
ASSISTANT ADMINISTRATOR FOR WATER, UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY; PAUL FROHARDT,
ADMINISTRATOR, COLORADO WATER QUALITY CONTROL
COMMISSION; JOSEPH G. PIZARCHIK, DIRECTOR, BUREAU
OF MINING AND RECLAMATION, PENNSYLVANIA DEPART-
MENT OF ENVIRONMENTAL PROTECTION; DAVE WILLIAMS,
DIRECTOR, WASTEWATER, EAST BAY MUNICIPAL UTILITY
DISTRICT, OAKLAND, CALIFORNIA**

Mr. GRUMBLES. Thank you, Mr. Chairman. And thank you also, Congressman Boozman and Congressman Salazar, for your interest and your leadership on Good Samaritan efforts and holding this hearing. I was very encouraged by Congresswoman Johnson, her statement that she was looking forward to legislation this year, moving forward with legislation.

So on behalf of EPA, I am very honored to appear before the Subcommittee to discuss the barriers and also talk about some of the solutions and things that can be done to incorporate cooperative conservation and common sense into what has been over the decades a very complex issue. So there is great opportunity to accelerate environmental protection and watershed restoration through cooperative conservation and common sense, as applied to clean water and other liabilities.

Mr. Chairman, I just wanted to mention that behind me is the Deputy Assistant Administrator for Water, Brent Fewell, who has been the fuel, the driving force behind a lot of the Agency's Good Sam work over the last year. I remember sitting over on the other side over a decade ago, when this Subcommittee was listening to the problem about Good Samaritan, the need for cleanup of abandoned mines throughout the West and other places in the Country.

The main message is that we are committed to working with the Committee on a bipartisan basis to really make this the year where legislation moves forward. We also are committed administratively to do everything we can to advance cooperative conservation and common sense in the content of cleaning up these abandoned mine sites.

As you and others have stated, the problem is large and complex. There are hundreds of thousands of abandoned or inactive mine sites across the Country, and there are thousands that are contributing to water quality impairments and degrading watersheds.

So the real issue is, how can we move forward in a responsible way to accelerate the progress in environmental restoration? A lot of experts speaking after me will highlight some of the legal and bureaucratic complications when Good Samaritans want to move forward. We view a Good Samaritan as a good steward who is acting because he is inspired, not because he is required to do so.

We see that there are challenges under the Clean Water Act when it comes to the permitting responsibilities and the liabilities and the standards. So what I wanted to do, Mr. Chairman, in the remaining amount of time, was to focus on first the threat of liability. It is a barrier, a barrier to Good Samaritans stepping forward. It is a barrier under the Superfund laws because of the operator liability or arranger liability.

Those who do not own the land and want to step forward to help remediate these legacy sites face the very real threat that they won't be able to rely on protections under the Superfund law. They face the very real threat that they will be liable under the Clean Water Act for permitting responsibilities. That is why we think both administrative and legislative efforts are important to have a targeted and responsible approach to reduce or remove some of the liability.

Partial cleanups by Good Samaritans will result in meaningful environmental improvements. In many cases the impaired water bodies may never fully meet water quality standards, regardless of how much cleanup or remediation is done.

By holding Good Samaritans accountable to the same cleanup standards as polluters, or requiring strict compliance with the highest water quality standards, we have created a strong disincentive to voluntary cleanups. So in addition to the barrier of liability under CERCLA or the Clean Water Act, there is also the barrier of water quality standards that are not appropriate for this precise situation when volunteers, Good Samaritans are stepping forward.

We are not supporting, we are not talking about decreasing the level of protection, the water quality standards, as much as we are talking about injecting some common sense. If the Good Samaritan is going to be improving water quality, that is the real measure, and that is what we wanted to ensure occurs, but not have a barrier where they are held to the same standard as the industrial polluter or the other polluter who created the problem in the first place.

In August of 2004, there was an executive order on cooperative conservation. In August of 2005, Administrator Steve Johnson announced a Good Samaritan initiative by the U.S. EPA to really make progress in cleaning up these abandoned hardrock mine sites across the Country. What we are doing, Mr. Chairman, administratively, is advancing a tool kit that will provide an array of tools, a model covenant or agreement with Good Samaritans to help reduce the threat of liability, also letters, comfort letters to give them signals to move forward, also guidance with other Federal agencies. We also have an innovative project we are working on with Trout Unlimited at the American Fork Canyon.

Mr. Chairman, the thing I really wanted to emphasize in the remaining amount of time is on the legislative front. We applaud the efforts, the bipartisan efforts of members of Congress, both sides of the aisle and both chambers. But we ourselves are also aggressively moving forward with developing legislation on behalf of the Administration that will bring together and help add momentum to the effort to get legislation across the finish line. We would be delighted to share that when we can, hopefully in the very near future. But it is focused on streamlined permitting processes, a targeted approach, realistic and common sense standards and really accelerating watershed restoration and protection.

Mr. Chairman, I just want to commend the Committee and Congresswoman Johnson for their interest in this, and pledge to work with all of the members of the Committee in moving forward responsibly with targeted legislation for Good Samaritans.

Thank you, Mr. Chairman.

Mr. DUNCAN. Thank you very much, Administrator Grumbles. Your statement points up clearly that, as in most things, nothing is as simple as it appears on the surface. It is a complex problem and I applaud you for going forward with the initiative that you have described administratively. We appreciate your offer to help on the legislation. I think you always approach these issues in a very sensible, intelligent way.

I appreciate your comments. In almost no legislation can we ever go as far as people who work full time on that particular problem to the exclusion of all other problems. But hopefully we can make some progress.

Our next witness is Mr. Frohardt. I have already introduced Mr. Frohardt and you may begin your statement.

Mr. FROHARDT. Thank you, Mr. Chairman, members of the Committee. I appreciate the opportunity to be in front of you today to talk about this issue, which is of great importance to the Western Governors Association and western States.

Abandoned and inactive mines are responsible for many of the greatest threats to water quality in western States. We do have thousands of stream miles that are impacted by drainage from these mines and runoff. And we have encountered a situation where there is often no identifiable financially responsible party to clean up these sites.

In view of the significant impacts that are caused and the difficulties in finding a responsible party that can be required to clean up the sites, States are very interested in undertaking and encouraging Good Samaritan remediation initiatives; that is, initiatives by States and other third parties who are not legally responsible for the existing conditions to try to improve the situation.

However, as has been pointed out, there is currently no provision in the Clean Water Act that protects a Good Samaritan that attempts to improve conditions at these sites from becoming legally responsible for any continuing discharges after completion of a cleanup project. We believe that this potential liability under the Clean Water Act is the major barrier currently to cleanup of these sites.

The western States greatly appreciates recent efforts by EPA to examine and enhance administrative tools to facilitate Good Samaritan remediation efforts. But we do believe that only a legislative solution can fully address liability concerns, particularly for sites with draining adits.

Our written testimony addresses several principles that WGA believes are important for any Good Samaritan legislation. This morning in the brief time that we have, I would just like to highlight two of those principles. First, the definition of a remediating party or Good Samaritan. The western States believe that participation in Good Samaritan cleanups should not be limited solely to governmental entities, since there are many other persons that are likely willing to contribute to Good Samaritan cleanup initiatives.

However, the States believe that statutory provisions should be carefully crafted. In particular, that they should broadly exclude those with prior involvement at abandoned or inactive mine sites; they should broadly exclude those with current or prior legal re-

sponsibility for discharges at a mine site, and they should assure that any non-remediation related development at a site is subject to the normal Clean Water Act requirements, rather than the Good Samaritan provisions.

Secondly, the standard for cleanup under a Good Samaritan project. We believe that EPA should approve a Good Samaritan permit only if it determines that a remediation plan demonstrates with reasonable certainty that the actions will result in an improvement in water quality to the degree reasonably possible with the resources available to the remediating party for the proposed project.

However, we think it is particularly important that analysis of a proposed project, that that analysis needs to occur at the front of a project. It is very difficult to always predict exactly what is going to be achieved and therefore, a Good Samaritan's responsibility should be defined as implementing an approved project, rather than, for example, meeting specific numerical effluent limitations.

So the western States urge Congress to proceed quickly on this issue and in addressing the issue, we would recommend that Congress avoid expanding the Good Samaritan proposal to extraneous issues, such as re-mining or a general fee on mining. The western States are concerned that efforts to expand the scope of this issue are likely to generate significant opposition that may further delay or frustrate the ability to get this needed and widely supported proposal adopted into law.

Now I would like to turn for just a minute to a few comments separately specifically on behalf of the State of Colorado. Governor Owens is on record in support of S. 1848, the Cleanup of Inactive and Abandoned Mines Act, which was introduced by Senators Allard and Salazar. Colorado believes that this bill provides a thoughtful and balanced approach to the range of issues and options that have been discussed, and urges Congress to move forward with S. 1848 as the basis for Good Samaritan legislation.

For us, this is not an academic debate about appropriate legislative language. We have a number of projects in the pipeline that have been put on hold for many years, and if a Good Samaritan bill is enacted, water quality in Colorado will begin to improve during the next construction season.

Finally, I want to just provide a brief personal note. I first testified before this Committee on this issue on behalf of the Western Governor Association 11 years ago. At that time, we worked with a very helpful young Committee staffer named Ben Grumbles.

Unfortunately, since then, in spite of a lot of efforts by a lot of people, we still don't have a Good Samaritan Act, and we still do have the same water quality impacts to the streams in our mountains. Please work to get this legislation adopted quickly, so that real progress can be made without substantial further delay. Thank you for your time.

Mr. DUNCAN. Thank you very much, Mr. Frohardt. Somebody told me a couple of months ago that the days are long but the years are short. And I am sure you would say that 11 years has probably gone by very, very quickly.

Mr. Pizarchik.

Mr. PIZARCHIK. Thank you, Chairman, members of the Committee.

As part of my discussion today, in regard to the barriers to the cleanup of abandoned mines, I would like to talk about our experiences in Pennsylvania regarding the reclamation of abandoned mine lands under Pennsylvania's Environmental Good Samaritan Act and under our re-mining program.

In my home State, we have had over 200 years of mining that have left a legacy of over 200,000 acres of abandoned mine lines. These abandoned sites include open pits, water-filled pits, spoil piles, waste coal piles, mine openings and subsided surface areas. The water-filled pits shown on the easel there in that photo covers 40 acres and is 238 feet deep. All that water is acid mine drainage. It will cost over \$20 million to reclaim it.

We also have thousands of abandoned mine discharges with varying degrees of acid, iron, aluminum, manganese and sulfates in the water. Some of the discharges are small and some are quite large. One such large discharge is a tunnel that drains over a 20 square mile area and discharges 40,000 gallons per minute.

According to an EPA Region III list from 1995, there were 3,158 miles of Pennsylvania streams affected by mine drainage. Over the last 60 years, Pennsylvania has spent hundreds of millions of dollars on abandoned mine problems. It became clear that without help from others, Government efforts alone would take many decades and billions of dollars to clean up all of the problems. Additional options were needed.

One option was re-mining. We found that operators were obtaining mining permits for abandoned sites and were mining the coal that was previously economically and technologically impossible to recover. However, such re-mining and reclamation was not occurring on sites that contained mine drainage.

When Pennsylvania officials tried to leverage the State's limited resources by working with citizen and watershed groups to accomplish more reclamation, we met significant resistance. Citizen groups and mine operators alike would not tackle sites that had mine drainage on them, because State and Federal law imposed liability on them to permanently treat that discharge.

With the advances made in science, technology and in our understanding of mine drainage, we in the Pennsylvania mining program knew that there were many abandoned discharges that could be eliminated or improved at little or no cost to the Commonwealth if we could address the potential liability issue. In Pennsylvania, we took two different approaches to limit the liability.

First, for re-mining of sites with pre-existing discharges, we worked to change the mining laws to eliminate mine operators' liability. Second, we enacted the Environmental Good Samaritan Act to provide protections and immunities to people who were not legally liable, but who voluntarily undertook reclamation of abandoned mines.

For the re-mining, we only approved permits that are likely to improve the discharge. While the law limits a permittee's potential liability, it does not provide absolute liability. Potential liability for making things worse helps weed out those sites that cannot suc-

cessfully be re-mined, and helps ensure that the operator follows the special measures needed to improve or eliminate the discharge.

Our re-mining program has been very successful. Of 112 abandoned surface mines containing 233 pre-existing discharges that were re-mined, 48 discharges were eliminated, 61 were improved, 122 showed no significant improvement and 2 were degraded. Thousands of tons of metals deposited into the streams annually were removed. Approximately 140 miles of our streams were improved. Treatment would have cost at least \$3 million a year every year to remove that through conventional measures.

The benefits of re-mining are not limited to our water quality improvements. Significant amounts of Pennsylvania's abandoned mine lands have been reclaimed at no cost to the Government. Over the past 10 years, 465 projects reclaimed over 250,000 acres and eliminated 140 miles of dangerous high wall. Abandoned waste coal piles were eliminated. Abandoned pits were filled. And lands were restored to a variety of productive uses, including wildlife habitat.

On the photo that you see there, those are elk. They are Pennsylvania elk, and they are feeding on a site that was re-mined and reclaimed pursuant to our re-mining program. The estimated value of the reclamation that was accomplished through re-mining in the past 10 years exceeds \$1 billion.

Separate from our re-mining laws is Pennsylvania's Environmental Good Samaritan Act. Like re-mining, only projects approved by our Department are eligible for the protection. Approval is required to ensure that the project is likely to make things better. The project must be an abandoned mine land or abandoned discharge for which there is no liable party. And protections are provided to the land owners, as well as those who are doing the work or providing materials or services.

Pennsylvania has undertaken 34 Good Samaritan projects. Some projects are simple, low-maintenance treatment systems. Others are more complex, like the project in Bittendale, Pennsylvania that transformed an abandoned mine into a park that treats acid mine drainage, celebrates the coal mining heritage and provides recreation facilities for the residents and serves to heighten public awareness about the importance of treating mine drainage.

While Pennsylvania's Good Samaritan Act has been successful, there are concerns. First, the Federal Clean Water Act citizen supervision still poses a potential liability to these Good Samaritans. Recent developments portend action by some who hold a strict, literal view of the permitting requirements and the total maximum daily load requirements of the Federal Clean Water Act. Without Federal Good Samaritan Act or an amendment to the Clean Water Act providing that Good Samaritan projects and abandoned mine discharges are not point sources or not subject to the permitting requirements, the potential good work of the volunteers in Pennsylvania throughout the Country is at risk.

People who would undertake projects to benefit the environment in America could be personally liable for making things better just because they didn't make them perfect.

Thank you.

Mr. DUNCAN. Thank you very much, Mr. Pizarchik. Very fine statement. It has been a wonderful thing to see some of these reclamation projects where people have put golf courses, retirement communities, green spaces and parks. I particularly enjoyed the picture of the elks feeding there. Thank you very much.

Mr. Williams.

Mr. WILLIAMS. Thanks for the opportunity to address you this morning.

I think we need Good Samaritan legislation and what I wanted to do is touch on an example that we had at our district, and then give you some of my thoughts on how the POTW, the publicly-owned treatment works, could play a role in this.

Abandoned mines are a big problem. There are over 39,000 alone in California. A lot of waste rock goes along with that, and the acid mine drainage. The East Bay MUD story is that we are a wastewater district serving 1.3 million people in the East San Francisco Bay. Our water supply is on the Mokelumne River in the Sierra Foothills. We have a couple of reservoirs there.

We have a reservoir, and the south shore of that reservoir has an abandoned mine. It is called Penn Mine. It was a major copper producer during World War II, and it was abandoned in the 1950s. When it was abandoned, there were 400,000 cubic yards of waste rock left in piles on the site. That resulted in 100,000 pounds of copper being discharged in the Mokelumne River every single year from acid mine drainage and massive fish kills.

We were asked by the State in 1978 to help implement an abatement plan. We said okay. Our part of the plan was to build a berm about 100 feet long, 15 feet tall, to basically keep the acid mine drainage from entering the river. We did that on our land. It resulted in dramatic improvements in the reduction of acid mine drainage and reduction in fish kills.

We were then sued in 1990 by the Committee to Save the Mokelumne. They said that it represented a potential to discharge, the spillway on this berm, into the Mokelumne. We argued that in court and lost. When we lost, we were then ordered by EPA to restore the entire site to the pre-mining condition. So we did that at a cost of \$10 million. That was completed in 2000.

The story spread like wildfire throughout California, put a chilling effect on any efforts to clean up abandoned mines and little has happened since then.

I think that is a good example, but I think there is a lot of potential for benefits. And I think the POTW community could play a role in that. I wanted to give you an example of how that might work. Currently, San Francisco Bay is impaired for mercury. So how did all the mercury get there? Well, it came from mining operations, 26 million pounds of mercury was used to extract gold during the Gold Rush days. Eight million pounds of mercury found its way down into the sediment into San Francisco Bay.

So you have sediment and you have the continued runoff from the abandoned mines. The total maximum daily load report for San Francisco Bay identified the major sources. Two major sources: sediment and abandoned mines. Publicly-owned treatment works were also a contributor. We contribute, total, all 40 treatment plants in the Bay Area, 17 kilograms out of a total of 1,220 kilo-

grams that find its way into San Francisco Bay every year. We are viewed as a de minimis source.

Nonetheless, the TMDL is proposing that we cut back the mercury discharge from treatments by 40 percent in 20 years. You can do a little bit with pollution prevention. But you can't make the 40 percent. So we need some assistance there.

What we are faced with is installing costly tertiary treatment facilities at a cost of an estimated \$200 million to \$300 million per year on the ratepayers, in addition to what they are currently paying in the San Francisco Bay area. Doesn't it make sense to spend much less than that and get much more bang for the buck by creating a mechanism where you could go in and relieve some liability and do some good by cleaning up abandoned mines? It seems to make sense to me.

Let me give you some thoughts on what I think a Good Samaritan legislation should address. One is, it should provide for a process to assure that projects make sense and a reasonable expectation that you are going to get the environmental benefit that you are expecting. There should be assurances that the project will be done without imposing some of the typical NPDES permit requirements as Mr. Grumbles mentioned that may be unnecessary and inapplicable.

It should limit long term responsibility once the remediation is done. And of course, it should not negate existing liability of those who have caused the problem.

There are just a few other considerations, whether they be addressed in legislation or policy or guidance. But that is, the effort should be voluntary. There should be cost certainty, so that someone is not writing a blank check.

And the cleanup effort should be reasonably related to that which a discharger would otherwise have to do and have an incentive built in it. If you are going to spend \$50 million on treatment facilities and you would have to spend the same amount to clean up an abandoned mine, you are going to build the treatment facilities, because you have control over that. There needs to be some incentive there. Also, it needs to be documented in the permit, because the permit does give a shield.

In summary, I think that efforts on mine cleanup are stalled. The time is right. You have the power, and I urge you to act.

Mr. DUNCAN. Thank you very much, Mr. Williams. Four very fine statements, very informative and I think very helpful.

Mr. Grumbles, you mentioned and I mentioned the Good Samaritan initiative that the EPA is presently attempting. Can you do enough, can you provide adequate legal protection through your initiative administratively without legislation?

Mr. GRUMBLES. Mr. Chairman, we believe legislation would be extremely important and helpful. It is very hard to accelerate watershed restoration at the pace we want to accelerate it, based solely on administrative authorities. We will use those to the fullest extent, but legislative guidance and direction from Congress is really what is needed.

Mr. DUNCAN. Are there other major laws or obstacles besides the Clean Water Act and the Superfund law that would get in the way of potential environmental Good Samaritans?

Mr. GRUMBLES. Mr. Chairman, I would say on a case by case, watershed by watershed basis, there may be times when another law creates a barrier that needs to be worked out, worked through. But we feel that based on the evidence and some of the work that, in the report, that you will hear more about--cleaning up abandoned hardrock mines in the west, Patty Limerick's efforts--the evidence is that those are two of the primary obstacles, and certainly the Clean Water Act, the permitting and the liability and the right standards question are ones that we think merit the greatest amount of attention and focus, and focus in a targeted way so that a decade from today there is not another hearing urging movement on legislation. The barriers, the pitfalls to legislation in the past, have been trying to solve or respond to too many other ancillary issues. So we support focused activity on the Clean Water Act and some of the Superfund-related issues.

Mr. DUNCAN. Do we need to treat public or private lands differently in any way?

Mr. GRUMBLES. Well, I think that one of the challenges and opportunities for moving forward smartly is to ensure that Federal land management agencies are very much involved in these Good Samaritan projects, as cooperating agencies. And we do need to keep in mind, on a site by site basis, the different factors that play in having a successful bill. We think it is important to focus on the status of the Good Samaritan and make sure that that person or organization is in fact a Good Samaritan and that it is not about profit, but it is about environmental protection.

Mr. DUNCAN. Are there other measures that you think we need to take in addition to Good Samaritan legislation to speed up our assist in the cleanup of these abandoned mine sites?

Mr. GRUMBLES. Certainly the whole spirit of the executive order on cooperative conservation is, work with all parties to facilitate cooperation and conservation as opposed to confrontation. I would say that pilot projects are very important, they are very good, and we are using our authorities to carry out pilot projects under the Clean Water Act and non-point source programs and the targeted watershed grants. But it requires more than just pilot projects. There needs to be, from the top, a strong message providing legal protection and inserting common sense into the standards process.

Mr. DUNCAN. Administrator Grumbles needs to leave here in just a few minutes. I have questions for the State witnesses but I am going to turn to Ms. Johnson now for any questions she has for Administrator Grumbles.

Ms. JOHNSON. Thank you very much, Mr. Chairman. I really don't have in particular for Mr. Grumbles, but I appreciate your being here and making yourself available.

Mr. GRUMBLES. Thank you.

Mr. DUNCAN. All right, thank you very much, Mr. Grumbles, you are free to go. Thank you very much for being with us.

Mr. Frohardt, what is your best estimate of how many abandoned mine sites there are in the U.S. and how many in the State of Colorado?

Mr. FROHARDT. Mr. Chairman, I don't have those numbers specifically. There have been widely varying estimates and it really depends on what people are looking at. We have a lot of abandoned

sites, and then you get different estimates of what subset of those sites are specifically causing water quality impacts. But throughout Colorado, we have sites, in each of the headwaters of each of our river basins that continue to cause significant impacts. We have local groups in each of those basins that are anxious to undertake efforts to clean them up if we can get this issue addressed.

Mr. DUNCAN. How many States are there in the Western Governors Association?

Mr. FROHARDT. Eighteen.

Mr. DUNCAN. Eighteen? And do you have any kind of rough estimate as to how many abandoned mine sites there are in those western States? Do you think this is primarily an eastern problem or primarily a western problem or about the same all over the whole Country?

Mr. FROHARDT. The western States have been focused in particular on the hardrock sites, are where we are seeing the greatest impacts from the historic activities. I would assume that those problems occur much more frequently in the western States.

Mr. DUNCAN. Have you found, or do you believe there are quite a few Good Samaritans that would be willing to perform abandoned mine site cleanups?

Mr. FROHARDT. Absolutely. Again, we have over a dozen groups in Colorado in different locales, different river basins, different specific historic impact sites that have really over the last decade gotten themselves organized and interested in undertaking projects. They are at varying degrees in terms of their analysis or how ready a specific project is to go forward. But I believe that if this liability issue can be addressed we have quite a few instances where progress could be made quickly.

Mr. DUNCAN. You have been involved in this for a long time, because you mentioned testifying 11 years ago, and I assume you were involved in it for at least a few years prior to that. What laws do you think have been the greatest obstacles to getting these abandoned mines cleaned up?

Mr. FROHARDT. Again, the Western Governors Association's focus has always been to principally on the Clean Water Act. Within the State of Colorado, when we first started looking at actually using some Section 319 non-point source funds under the Clean Water Act for our Division of Minerals and Geology to clean up some sites in the late 1980s, the first thing we worried about was CERCLA liability, because that is usually much broader and scarier liability.

We found some mechanisms under CERCLA that appeared to us to be workable. Our State entered into a memorandum of understanding with EPA and using on-scene coordinator provisions of CERCLA, felt that we had a mechanism which was maybe not ideal but at least workable to move forward, until in the early 1990s, thanks to the unfortunate experience of East Bay MUD, we all became aware of these concerns under the Clean Water Act for which we were unable to find an administrative solution.

So I think it starts with the Clean Water Act. I think there are some complications in CERCLA. As Ben Grumbles said, there may well be instances where there could be issues that come up under other statutes as well, but we believe those are the primary concerns.

Mr. DUNCAN. Well, thank you very much.

Mr. Pizarchik, you have described the Pennsylvania program, and I commend you for what you have been able to do so far. Do you feel that your State program has been able to give adequate legal protection to the people who want to clean up or redevelop these sites? Or do you think it would help for additional Federal legislation to be passed?

Mr. PIZARCHIK. Additional Federal legislation would be very helpful, Mr. Chairman. We have a number of folks who have been reluctant to undertake some of these cleanup projects because of their concern for the Federal legislation. We have had some other folks who were willing to proceed and take the risks on somebody suing them on that point, and we have been fortunate to date that we haven't had that happen.

But I believe a Federal assistance, Federal legislative fix for that potential liability would go a long way to encouraging more people to undertake these projects.

Mr. DUNCAN. Have you had a difficult time or an easy time trying to determine what level of cleanup a potential Good Samaritan should be required to achieve?

Mr. PIZARCHIK. We have not had that problem, Mr. Chairman. Based on the long history that we have had with our re-mining program, we have learned a lot about what can be accomplished through certain best management practices or activities out on the site. We work with the watershed groups who are willing to take these projects to undertake those.

I would strongly recommend against the establishment of a numerical number, because the sites vary so much in the quantity and the quality of the pollutants and the problems that are out there that what can be achieved by a Good Samaritan can vary significantly. Sometimes we can get total elimination of the discharge, other times we can only get an incremental improvement.

So something that was more along the lines of a best management practice approved by the State agency that was likely to make things better would be much better suited to the problem than establishing numerical limits.

Mr. DUNCAN. Thank you very much.

Mr. Williams, you mentioned the gigantic problem that you face in the Bay there, but you are a de minimis participant, as you said, a very small part of the problem. What do you think we need to do? What approach would you recommend that would, you think, facilitate or speed up this mine cleanup process?

Mr. WILLIAMS. One thing I think that is needed is some sort of an offset program. Right now there isn't an offset program in California and—

Mr. DUNCAN. How does that work?

Mr. WILLIAMS. It could work in a number of different ways. But an example would be that if you are looking at reducing a discharge from your treatment works by a kilogram, you might go and clean up 10 kilograms of a same pollutant or a similar pollutant, a toxic pollutant at a different site. You could set up some sort of a mitigation bank, where you could actually pay into that and reap the benefits of that leveraging there.

One of the fundamental problems is the liability issue. EPA has a trading policy, but it doesn't allow for going outside the watershed. It also states that if you trade, and this is where somebody is in business, so you trade with somebody, so it is much more cost effective to reduce their pollutant loading than to reduce yours. That is kind of a trading policy.

But the way the policy reads is if they do not uphold their end of the bargain, then you are still on the hook. Well, that doesn't work very well for abandoned mines, right? So it is kind of that blank check type of thing.

So I think having legislation that addresses the liability issue would be a major step forward to allowing States to begin to tackle this offset type of concept.

Mr. DUNCAN. How long have you been in the utility business?

Mr. WILLIAMS. Thirty-three years.

Mr. DUNCAN. Thirty-three. And I assume you know, you go to a lot of utility meetings and know a lot of people in this industry.

Mr. WILLIAMS. I do.

Mr. DUNCAN. Do you think that a lot of utilities would consider engaging in Good Samaritan projects if they had adequate liability protections?

Mr. WILLIAMS. If it was adequate liability and if it was voluntary, I think they would certainly consider that. They would be looking at meeting TMDLs, and it doesn't matter if it is a TMDL for mercury or PCBs or legacy pesticides, anything where they are a very small contributor and it is going to be very difficult for them to meet. If there was liability protection and it was voluntary, you would certainly have people looking at that very carefully.

Mr. DUNCAN. How would you respond to statements that if your utility district only had sought a permit from the State, the district would not have been held liable for cleanup and subsequent monitoring action?

Mr. WILLIAMS. That's an interesting question. You go back 20 some years, at the time, 1978, massive fish kills on the Mokelumne River, which is a reservoir that we owned. It is a huge recreational resource in the Sierra foothills. Unabated discharges of acid mine drainage, high in copper loadings, into this reservoir. And we get approached by the State regulatory body that actually issues permits. And they say, you don't need a permit for this, would you participate in this abatement effort and build this berm that would keep the acid mine drainage from running into the river.

With 20-20 hindsight, but at the time, on the ground, we said, yes, we will. Obviously we were wrong, because a court ultimately determined that the fact that periodically in heavy rain types of situations there was a spillway on that berm and that spillway could overflow. And what overflowed was going to receiving water in the United States, and it did not meet water quality standards. So we got burned.

Mr. DUNCAN. All right, well, thank you very much.

Ms. Johnson.

Ms. JOHNSON. Thank you very much, Mr. Chairman.

Mr. Pizarchik, from Pennsylvania, you have a State legislative action on Good Samaritans. Tell me exactly how that works. How do you go about encouraging people?

Mr. PIZARCHIK. At the time we had that legislation enacted, we also had a bond sale that was approved, and where it has raised \$650 million for watershed improvements projects, spring cleanup projects. Our agency used that money for grants to watershed groups to do cleanup streams, but also helped to encourage the construction of watershed groups.

As part of the Environmental Good Samaritan Act, we have a fact sheet out that we distributed to watershed groups, we have watershed coordinators in our various district mining offices that attend these types of meetings. We have a formal guidance document that lays out the process about how a group can come in under the protections of that particular statute.

They submit their proposal to our agency. We review it for the purposes of determining whether or not it is going to make the water quality better, to improve water quality. We also get all the participants identified. We track that information in a data base. And for whatever sources these folks are using for their money, they go out and will complete the project. We work with them on that particular project.

Our Good Samaritan Act provides them protections under any citizen suit provisions under our State laws, or State Clean Water act. And it also protects those folks should anybody be injured while the project is occurring. It allows for future protection as well, if that project should fail at some point in the future, if their treatment system failed, they would not have liability under at that point as well.

In addition, we also undertake a public notice provision where we notify the adjacent property owners and downstream riparian landowners and give them an opportunity to have input on the project, to make sure that any concerns that they may have would be considered in the approval or incorporated into the plan, in order to help project them from any adverse consequences.

In essence, what we have for those approved projects, it is set up pretty much as an affirmative defense if someone were to try to challenge or to sue those people for anything that happened out on that project, or for something that might happen in the future. And we maintain a data base that lists the participants, the location of the projects, et cetera, so it is accessible to any members of the public to be raised as that type of an affirmative defense.

Ms. JOHNSON. Thank you very much.

Anyone else with a program that might not be codified yet? All codified?

Mr. FROHARDT. Thank you, Representative Johnson. In Colorado, we have not adopted any State law at this point. There has been some consideration of that. But because the ultimate liability concern really is the Federal law, and obviously we can't affect that liability, we have made the decision at this point not to do anything especially with our State law until Federal law hopefully gets addressed.

Ms. JOHNSON. Mr. Williams, do you have anything similar?

Mr. WILLIAMS. In terms of a State law?

Ms. JOHNSON. Well, whether you have a law or not, whether you have maybe a volunteer program, and how it works.

Mr. WILLIAMS. No, there is concern right now with respect to adoption of the TMDLs. That is something that many POTWs are concerned about. And that is that absent a framework of any kind of an offset program, and absent any fix with respect to liability issues, the concern is that if you are a de minimis source and the TMDL gets adopted, and you are at a point where the only thing that you could possibly do aside from adding very expensive treatment facilities is try to do source control.

And you do that, but you know that the source control isn't going to get you to the end point, the concern is that you will be ratcheted down because you are a point source, and be leveraged to go out and do something. The situation is, do something until we tell you it is enough. And that is the concern that we have as a POTW community.

Ms. JOHNSON. Thank you very much, Mr. Chairman.

Mr. DUNCAN. All right, thank you, Ms. Johnson.

There are so many parts of this that we haven't covered, and we are going to be getting into some votes in just a few minutes, and we are going to have to move on to the next panel. But just for a few examples, our staff, when we were discussing this yesterday, we came up with some of these things, whether Good Samaritan legislation is necessary, who should be allowed to remediate with reduced liability, whether and to what extent anyone should try to find the original responsible parties, whether in some circumstances environmental standards should be made more flexible in order to achieve at least partial cleanup, what and how cleanup benchmarks or standards should be applied in Good Samaritan cleanups, whether citizen suits should be allowed against a party acting as a Good Samaritan, what are the restrictions on these suits? That is a difficult question there.

Whether to extend Good Samaritan protections to abandoned coal as well as hardrock mines, whether to extend Good Samaritan protections to public as well as private lands, what incentives should be extended to encourage Good Samaritan cleanup? That is a potentially interesting thing, too. Whether and what circumstances and by whom re-mining of abandoned mine sites should be allowed. Re-mining could be a big question. Whether and how to set up a funding mechanism to pay for cleanup of abandoned mine sites. Who should administer a Good Samaritan program.

I mean, these are just a few of the questions. And the reason I covered these things, very quickly, like I said, we are going to have to move on to this next panel. But to help us, if there is anything that I haven't covered here or anything that I have mentioned there that creates some thoughts in your minds, I wish that you would, I hope you would be willing to submit an additional statement or comments that we can place in the record. You would have to do that within the next few days, if you could do that. But that would be very helpful to go into the final report of this hearing.

So we thank you very much for being with us today and for coming long distances to be here. You have been really outstanding witnesses, in my opinion. Thank you very much.

We will proceed with the next panel, and hopefully we can get in their statements before the votes occur. We have as the second

panel, representing the Center of the American West, Ms. Patricia Nelson Limerick, Ph.D, Professor of History and Faculty Director at the University of Colorado at Boulder; representing the National Mining Association, we have Mr. John Mudge, who is the Director of Environmental Affairs of the Newmont Mining Corporation from Reno, Nevada; we have representing Trout Unlimited Mr. Chris Wood, who is Vice President for Conservation Programs, and he is based here in Arlington, Virginia; and we have representing the National Environmental Trust Ms. Velma M. Smith, Senior Policy Associate, and she is here in Washington.

We are very pleased and appreciative that all of you would take time out from your busy schedules to come here. You have probably heard me say that your full statements will be placed in the record. You will be given six minutes, but I stick strictly to that. If you see me wave this, I do that to try to be polite to the other witnesses and in consideration of members' schedules, so that they can hopefully get to some questions.

But we will start with Dr. Limerick.

TESTIMONY OF PATRICIA NELSON LIMERICK, PH.D, PROFESSOR OF HISTORY AND FACULTY DIRECTOR, UNIVERSITY OF COLORADO AT BOULDER; JOHN MUDGE, DIRECTOR, ENVIRONMENTAL AFFAIRS, NEWMONT MINING CORPORATION; CHRIS WOOD, VICE PRESIDENT FOR CONSERVATION PROGRAMS, TROUT UNLIMITED; VELMA M. SMITH, SENIOR POLICY ASSOCIATE, NATIONAL ENVIRONMENTAL TRUST

Ms. LIMERICK. Thank you very much, Mr. Chairman and members of the Subcommittee. I thank you for your public service, as an historian and as an American citizen, I have a two-fold appreciation for what you do in your offices.

It is a great honor and privilege to appear before you. I feel particularly fortunate to be speaking on behalf of a good cause, to be discussing a problem that comes with a solution and a practical and pragmatic solution at that. We were fortunate to write a report at the Center of the American West called Cleaning Up Abandoned Mines, Hardrock Mines in the West, with the support of EPA, with the participation of Trout Unlimited and with a big debt to the Western Governors Association.

I must say that writing that report was a spirit-lifting exercise for us at the Center, because this is not an intractable problem. This is one of the few environmental issues in which a clear and workable solution sits before us, a solution carrying bipartisan sponsorship and support.

Abandoned mines and acid mine drainage present the opportunity for a rewarding, inspirational and I hope precedent-setting exercise in legislative problem solving. I believe it also represents an alternative to the polarization and condemnation that I know wears on you, as it wears on others of us.

Two historical reckonings are involved in this. The first reckoning, obviously, with the legacy of hardrock mining. No one in the field of history, no one who lives in the west can be in denial for a moment of the significance and value of mining in building the west and indeed, building the Nation, winning the Civil War, Nevada silver, I will not give a lengthy historical lecture there, but

no one can mistake the importance of mining in building the region and the Country. So this is not a matter of blame and regret, dealing with these mines. It is instead a realistic reckoning with consequences, and a reckoning that can lead us to an important and inspirational precedent for other reckonings with the environmental legacy from our national past.

The dimensions of the legacy of abandoned mining and unfortunate mentions are obvious to everyone here, the loss of recreational opportunities, the impediment to economic development and diversification in western communities, the threat to wildlife, especially endangered fish species, the impairment of water supplies to downstream municipalities and other users, and even airborne pollution from the dust from tailings.

It is a daunting matter when you look at the number of abandoned mines. The estimates are of course uncertain. There is no exact record of this. Numbers as high as 500,000 for the American west have been given.

But the good news, and often not noted, I think, sufficiently, is that there is a comparatively small number of abandoned mines that could be a priority for cleanup. There is no need to treat all 500,000 or whatever the number is. In fact, there would be significant, enormously significant gains from the treatment of a small percentage of these sites.

Now, the second aspect of reckoning with history comes with our reckoning with the environmental laws of the 1970s, I know a matter that comes before Congress in all sorts of forums. In this case, we reckoned with the legacy of the Clean Water Act, and the unforeseen and unintended consequences of that Act as it was written and then put into practice.

The goals and intentions of the Clean Water Act have proven in a sense counterproductive in the matter of abandoned mines. We quote in our report from a man, John Whitacre, one of my favorite, favorite public officials, the Environmental Policy Advisor to President Nixon and then the Under Secretary of Interior after that, who was present at the creation of the Clean Water Act and who says, I think quotably and memorably in our report, "We did not envision at the time that the day would come when the zero charge instruction would prevent Good Samaritans from cleaning up acid mind drainage." So here we have one statement, I am sure we could get many others from people present at the time of the passage of the law that the effect on discouraging Good Samaritans was not an intended part of the passage of that Act.

So honoring the core values of the Clean Water Act requires a modification of one regulatory element of the original Act. I believe that, speaking as an historian, an important demonstration of flexibility and a willingness to make sure that an important act of legislation achieves its goals.

The west is well populated with Good Samaritans waiting to get to work on this issue. These are people, groups of dedicated citizens currently stymied by an unnecessary obstacle. When they are unleashed they are people with a creative capacity to cobble together funding resources to find a spectrum of local revenues, Federal grants programs and even private funding.

There is also a significant role potentially for companies and for the mining industry to play in this. We are talking about local people trying to act responsibly and even heroically to address local problems and being unnecessarily stymied. This is in other words a force for good that is easily unleashed. When Good Samaritans are released from the penalty, I believe we will see material, visible, measurable improvements in many western locations.

The issue of re-mining is, as a number of people have noted, including the Chairman, a difficult issue. But it is my judgment that there are a limited number of sites involved in the issue of re-mining. It would be interesting to have an investigation—maybe the Congressional Research Service could help with this—to put this problem in perspective.

What seems most likely to us at the Center of the American West is that re-mining, as a possible abuse of the flexibility of the provisions and requirements that would reduce the penalty on Good Samaritans, that re-mining poses a marginal risk and should not be an obstacle to the good that would come from new arrangements on behalf of Good Samaritans.

It seems to me also that adaptive of management flexibility in appraising the results of particular efforts could play a part in setting the standards in terms of how much improvement in water quality should be mandated for Good Samaritans.

I conclude with the well-known reality of American life. The American west is associated with the spirit of optimism and hope. We are challenged, we are challenged every day, we are called every day to match the enterprise, pluck and determination of those who came before us in the west and the cleanup of the abandoned mines as a providential opportunity to demonstrate that we have that enterprise, that pluck, that determination.

The timing of your considerations also seems to me as an historian to be promising and providential. The stars are coming together. Many of you have been in meetings on this subject for a long time. But I think the moment has begun to appear before us when change can happen.

I ask you as an historian to think of our relationship to posterity, the American citizens of the future. Good Samaritan legislation would be a clear and concrete way to court the good opinion of our descendants. I cannot deny myself what a professional and personal pleasure it would be for me to act as an historian and to write the history of the creative and positive actions of all of you as you solve this problem.

Thank you.

Mr. DUNCAN. Thank you very much, Dr. Limerick. Very interesting to say that there would be a significant number that would be unleashed for this force for good. That is a very hopeful statement.

Mr. Mudge.

Mr. MUDGE. Thank you, Mr. Chairman, Congresspersons. It is a pleasure to be here today, and especially to work on what appears to be a win-win situation here.

My name is John Mudge. I am the Director of Environmental Affairs for Newmont Mining Corporation. Newmont is a large, multinational mining company, with extensive operations in the west, gold and copper primarily, as well as operations on five continents

around the world. I have been with Newmont for 24 years, working in mining and environmental protection aspects associated with mining, and recognize the importance of doing it right in today's world, mining-wise, with environmental protection and reclamation.

But also through that, I recognize the hazards that have been created out there from past mining, turn of the century mining, and the abandoned mines that have been associated with that effort. Newmont in our effort really strives to do things right. We have received a number of reclamation awards over the years. Most recently we received a 2005 award from the Bureau of Land Management for 40 years of mining on the Carlin Trend in North Central Nevada and sustainability, reclamation and rehabilitation projects that we have carried out in association with that.

Despite the good work that we have done and our peers do, there are problems out there that have been discussed in fair detail here. I am here on behalf of the National Mining Association to endorse Good Samaritan legislation as we are discussing here today. We would like this to be a framework for incentives for Government entities, mining companies, citizen groups, non-profit organizations, to go forward and voluntarily remediate these problem abandoned mine lands.

As has been discussed, there are definitely limits and concerns about voluntarily cleaning up under the current statutes. Clean Water Act is one. RCRA may be a problem resource, Conservation and Recovery Act. A third of course is CERCLA. As we have discussed the possibility of entering old mine sites and doing cleanup, it has really been the Superfund liability under CERCLA that has dissuaded us from going into those properties.

The possibility of having to face another entity like a State or Federal Government coming in, cleaning up a property and then billing us because we spent any time on the property, is a deterrent that we just haven't got around to date. The Clean Water Act, and it has been discussed here today, but the stringent requirement on discharges and the stringent standards just may not be doable at some of these abandoned mine sites in any practical way.

This has been pointed out by the Western Governors Association, National Academy of Sciences and the Center of the American West in their review of legal impediments to cleaning up abandoned mine lands. We believe that there are five key concepts that should be in legislation going forward for Good Samaritan cleanup of abandoned mines. One is that mining companies that are active today that did not create this disturbance should be allowed to go in and clean up and it should be authorized under this Good Samaritan language. We have the know-how, the technology and in some cases the processing facilities nearby to carry out this work.

These projects should be authorized by a permit issued by the EPA. The EPA has the knowledge and the authority to set standards and to work with the permittee.

Mr. DUNCAN. You can keep going.

Mr. MUDGE. My time never came up here, so—

Mr. DUNCAN. You are fine.

Mr. MUDGE. I am in good shape? Good.

So the third component, Good Samaritan projects should be allowed to go forward as long as they will benefit the environment, even if they won't meet necessarily the stringent standards of acts like the Clean Water Act. The perfect should not be the enemy of the good in this case.

The fourth point, the EPA and the States should be given really the discretion and the authority to establish what the provisions would be in this Good Samaritan permit and the site-specific conditions need to be taken into consideration. What are the issues, what are the sources of pollutants, what are the various bodies of water and such that might be impacted.

The fifth point is, the types of remedial activities that can be authorized under the Good Samaritan permit must include the processing and the re-use of ores, minerals, wastes, mineral processing wastes, and the like. It is that aspect that the mining industry has the knowledge, has the capability and has the ability and the equipment to deal with.

In conclusion, legislation that embodies these five points that I have mentioned, and that will provide incentives to mining companies and other entities to go forward voluntarily, to remediate these AMLs, while fully protecting the environment and the interests of the public, should go forward. We commend the Subcommittee's attention to the Senate bill, S. 1848, introduced by Senators Allard and Salazar. We believe the Salazar-Allard legislation contains the elements necessary to remove the existing legal impediments that currently deter mining companies and others from undertaking investigations and remediations at these AMLs.

We also believe that it fully protects the public interest by requiring EPA and States to sign off on any Good Samaritan permit and by only allowing such permits in situations where the environment will be significantly benefitted.

I would be happy to answer questions at the appropriate time. Thank you.

Mr. DUNCAN. Thank you very much, Mr. Mudge.

Mr. Wood.

Mr. WOOD. Thank you, Mr. Chairman, Ranking Member Johnson, and other members of the Subcommittee. It is an honor to be here today to talk about abandoned mine cleanup and to share with you some of what we have learned on our own on the ground work cleaning up abandoned mines throughout the east and the west.

Trout Unlimited has about 160,000 members in 36 States across the Country. We have a long history of engaging in watershed restoration projects that improve fisheries and water quality and otherwise improve watershed health. In fact, each of our more than 400 chapters donates well more than 1,200 hours a year in volunteer service doing stream cleanups, including a number of abandoned coal and hardrock mine projects.

Since the creation of the Office of Surface Mining's Abandoned Mine Reclamation Fund in 1977, more than \$7.5 billion has been collected from the coal industry to help heal Appalachian and western coal fields. In places such as Kettle Creek watershed of North Central Pennsylvania, our work provides an example of how you

can use those resources to both accomplish ecological restoration as well as achieve economic opportunities.

In some of the places that we work in that State, thanks in large part to Pennsylvania's Good Samaritan legislation, which you heard about earlier, coal contributing to acid mine drainage is mined as part of a remediation plan. And then follow-up reclamation work can virtually eliminate abandoned mine drainage. Trout Unlimited is working with the Commonwealth of Pennsylvania, the Office of Surface Mining and other partners to extend this combination of active and passive treatments, habitat restoration and community education to the Broader West Branch watershed, which is a watershed that drains 20 percent of the State of Pennsylvania and many, many miles of which are essentially lifeless due to acid mine drainage.

From a fisheries and watershed health perspective, issues associated with abandoned gold and silver mines and copper mines are very similar to those of coal mines. The enormity and scope of the abandoned mine problem in the western United States has led to a collective sense of futility which I think you have heard a fair amount about today, that has fostered inactivity in many landscapes.

In 2003, Trout Unlimited decided to restore the American Fork Creek which is in Utah. This is an area that is visited by about a million and a half people or so a year. The Forest Service had reclaimed much of the landscape that was degraded by abandoned mines on public land. Those areas that were remained were largely on private lands that were owned by the Snowbird Ski and Summer Resort.

After reaching an agreement with EPA called an administrative order on consent, Trout Unlimited is now in the midst of removing the single largest sources of pollution from the private lands in the watershed. When complete this summer, fisheries and water quality will be significantly improved.

In our view, the two greatest needs for increasing the scope and scale of abandoned mine cleanup are creating a dedicated funding source, and establishing a Federal permitting process that encourages Good Samaritan restoration projects. Lack of money and liability concerns are significant barriers to local restoration.

In the coal fields, as I mentioned earlier, the Federal Abandoned Mine Land Reclamation Fund has collected over \$7.5 billion for the recovery of mine-scarred areas. That legislation needs long-term reauthorization, and the Appalachian Clean Streams Program needs increased funding.

Mr. DUNCAN. Mr. Wood, I apologize, let me interrupt you there. I had hoped we could get your full statement in, but we will just have to interrupt at this point. We have two votes going on. I wish we didn't have to do this, but we are going to have to break to do these votes. We should be back in about 15 minutes, and we will let you conclude your statement at that time. We will give you some extra time. Thank you very much.

[Recess.]

Mr. DUNCAN. I am sorry, they drag these votes out sometimes, and Mr. Wood, we caught you in the middle of your statement. You may resume your statement.

Mr. WOOD. Thank you, sir.

On the American Fork, we were able to cobble together some private and Federal funding, in particular, from the Tiffany and Company Foundation and through the Natural Resource Conservation Service to initiate our restoration. It is important to note that cleaning up private lands on the American Fork is not a particularly expensive proposition. To finish doing the job that the Forest Service started will only cost about \$150,000 to \$200,000.

There are hundreds if not thousands of other cleanups across the west that could be conducted if liability issues and funding issues were addressed. Every commodity developed off public lands has dedicated funding to pay for cleanup associated with production, except for hardrock minerals. Communities and organizations such as ours could get a lot more done if the resources were more readily available and in more obvious places than they are today.

The other impediment that we have talked a lot about this morning to making progress on the ground is a clear permitting process for Good Samaritans who wish to recovery abandoned mines. While CERCLA and the Clean Water Act are outstanding mechanisms for preventing pollution and holding polluters accountable, on many sites those polluters are long gone. Liability concerns can prevent Good Samaritan cleanups, as you have heard already today from taking place.

Our experience is that using existing tools to facilitate cleanup by Good Samaritans sometimes feels like pounding a square peg into a round hole. We are making progress, however. For example, the agreement that we reached with EPA on the American Fork can serve as a model for other cleanups across the Country. Our agreement protects Trout Unlimited by making our essential obligation the completion of an agreed-upon cleanup plan. In exchange for raising the money and doing the work, we get from EPA a covenant from the EPA not to sue us if they decide to go after a polluter; protection from other potentially responsible parties suing us, if EPA goes after them; a cap on our own liability if EPA chooses to step in and complete the work itself; and an expedited permitting procedure for meeting State and Federal legal requirements.

Once we complete the cleanup to the specifications of the plan and the satisfaction of EPA, we walk away. Too often, trailing liability concerns from the Clean Water Act and CERCLA are seen as impeding this kind of agreement.

Our administrative order on consent with EPA provides a model that can be replicated and alleviate many, if not all, the liability impediments to cleaning up abandoned mines. The fact is, though, that we never would have completed this agreement were it not for the direct involvement of Ben Grumbles' shop, Brent Fewell and the rest of the Office of Water and Administrator Johnson himself. Such extraordinary intervention should not be required for projects as small in scale as the American Fork. Now that the first one is complete, we expect and hope that future cleanups and future agreements will be easier to obtain.

In closing, the position of Trout Unlimited is that whether through new legislation or the creation of a new permitting system at EPA under existing law, a lot of good work can be done to im-

prove the quality of people's lives and the health of our lands. Thank you for inviting me to testify today.

Mr. DUNCAN. Thank you very much, Mr. Wood.

Ms. Smith.

Ms. SMITH. Thank you, Mr. Chairman. Since I am last in the lineup here, I am going to try to help your deliberations by getting straight to the point. You have heard this morning a number of speakers focus their concerns on the chill that the Clean Water Act seems to have on those who might opt to get in mine cleanups. We fully understand that parties, be they local governments, water utilities, or groups like Chris's may be hesitant to become holders of Clean Water permits.

We actually have some sympathy with their cautions, but we also believe that the concerns that have been raised can and in fact have, as Chris was just talking about, been addressed by working closely with regulators, carefully planning and tailoring cleanup projects to the appropriate scale and type, sometimes avoiding any discharge at all and working out appropriate consent agreements where necessary.

The folks from Pennsylvania earlier talked about a program that is working. Chris talked about cleanup that is working. And we believe that others can follow using that model consent agreement.

We think that caution is important. When it comes to mine cleanup, some significant caution is warranted. I would just draw your attention back to the case of the Penn Mine. It is actually one of those examples where, although conducted with the best of intentions, a mine cleanup actually went back and created new problems. I think that is what you need to guard against.

More importantly, we don't believe that the Good Samaritan projects are the real crux of the problem. There are down sides in trying to craft, it is difficult, as you drew out, Mr. Chairman, trying to figure out how craft legislation so you don't have projects that make mistakes and you don't weaken liability and stop cleanup at sites like Arrington, Nevada or Kennecott in Utah.

The inescapable fact is that there is an enormous universe of abandoned mines, perhaps in the range of half a million total, and neither industry nor Government is spending enough money to make a serious dent in the problem. Money is the single most important barrier to cleanup. Congress needs to appropriate more funds for cleanup. States need to contribute more to cleanup. And the hardrock mining industry needs to follow the approach of their coal mining brethren picking up a share of the cost of cleaning up legacy mining problems.

The other part of the problem is that not all of mining's problems are in the past. There are many mines, like those in the Copper Basin of Tennessee, Mr. Chairman, that do fit that image of the legacy or historic mine. But there are many more that are far more recent vintage. The west is dotted with abandoned mines that date from the 1980s, not the 1880s, but the 1980s when gold, copper and uranium mining were booming. Too many of those boom projects, once touted as environmental models and economic windfalls, have left large and costly messes.

These messes exist today, threats to public health and the environment and drains on the Federal Treasury, because the pro-

grams for regulating hardrock mining have failed. There is a desperate need for improvement of mining regulation, for a reasonable and enforceable program to govern disposal of mine waste, for financial assurance rules that actually assure that cleanup funds are available when mining operations cease.

In our view, the pressing need today is not to hurry along modest cleanup projects. Some of those will do good, but others, hurried, will go wrong and themselves have to be remedied. The pressing need is for improved regulation. The pressing need is for scrutiny and controls that recognize that perpetual pollution can occur at facilities like the Zortman Landusky Mine in Montana. The pressing need is for a regulatory system that deals with the vast amount of toxic waste produced by this industry.

Now, while the industry is on the crest of a boom, action to assure that this new generation of mining projects does not yet yield another generation of mining messes is what is needed. If as apparently you are anxious to legislate something to aid Good Samaritans, we urge you to look on the model of a demonstration project with funds, a demonstration project that looks at it on a watershed basis, that makes sure that there is appropriate baseline data, that engages mining reclamation experts, that includes a bond pool or other mechanisms to underwrite financial assurances for projects, and that doesn't undermine the liability that governs cleanup at other sites and that excludes re-mining.

We look forward to working with you, Mr. Chairman, and I look forward to your questions. Thank you.

Mr. DUNCAN. Ms. Smith, I am interested in your last few words there. You said that excludes re-mining. Do you think it would ever be possible to re-mine at an abandoned site in an environmentally safe way? Or do you think that is impossible?

Ms. SMITH. I don't know that the act of re-mining itself couldn't be done in an environmental way. I don't think it should be part of a waiver or exclusion. The fact is that many mining projects, especially in the west today, most all of them are probably at some level of re-mining. They are going back into old mining districts.

Summittville, Colorado, which was one of the sort of poster children of bad mine problems, actually was back in an area that had been mined before. There are a whole variety of mining projects that are going back into old areas. Which is not to say that you wouldn't want to go in and re-mine, just don't handle those, as a matter of a Good Samaritan project, with a streamlined permitting process. Just let them be mining projects.

Mr. DUNCAN. Since you say that some of the 1980s projects or areas that were mined, and they were described as environmentally safe at that time, and now they are disasters or harmful areas in your opinion, do you feel that mining companies should be excluded from any Good Samaritan legislation?

Ms. SMITH. I think the best way to get, if you want to move on this, is to get going with local governments, watersheds, water utilities, non-profit groups. I don't imagine, I think that the contribution that the mining industry could make would be like the coal mining industry has made under SMCRA, which is to contribute a certain percentage of profits or gross to a mine cleanup fund. I think that could be the primary role for the mining industry.

Mr. DUNCAN. Mr. Mudge, what do you say? When you heard Ms. Smith say that we should exclude re-mining, what is your position on her response to those last two questions?

Mr. MUDGE. I think in terms of re-mining, re-mining needs to be defined. If re-mining is going into an abandoned mine site and picking up mineralized materials that were left at the site and processing those, most likely to remove the metals, then re-mining absolutely should be allowed.

If re-mining means not only doing that, but then developing a new deposit of ore that may underlie that, then the myriad of State and Federal permits that are in place now would cover that activity outside of this legislation.

Mr. DUNCAN. Ms. Smith referred to the gold and copper mining boom of the 1980s and said that many of those areas are environmental problems at this point. Do you know what she is talking about there? Has new mining, do you have any projects from the 1980s that were described as environmentally safe at that time that are hazardous or problem areas now?

Mr. MUDGE. Well, a couple of examples. We have been mining on the Carlin Trend since 1965, and continue to develop those deposits. The rules and the regulations have changed over time. We have helped manage those changes, and we have brought our facilities up to today's standards over that time.

We have one facility that started up in the 1950s under old Atomic Energy Commission contracts. As we got into the 1980s, we built it according to more like today's standards, but there are some issues that date back way prior. But for the most part, our facilities that have been going since the 1960s, 1970s, 1980s are in very good shape environmentally.

Mr. DUNCAN. Dr. Limerick and Mr. Wood, do most of these projects, can they be done without very, very large amounts of money, or do you think that most of these projects would be, that it is very, very expensive to clean up these mine sites? Let's just go with that. What has your experience been in that regard?

Mr. WOOD. Our experience is that it varies. But I can use the American Fork as an example. The engineering involved on the American Fork was really straightforward. We essentially dug a pit, created a repository, moved some tailings that were leaching into the American Fork Creek and harming Bonneville Cutthroat trout, moved those tailings into the hole, actually this work is going to be conducted this summer, and then we are putting a liner over it, re-vegetating and then recontouring the land to keep the drainage away.

It will have a significant effect on water quality in the river, and it will cost us between \$150,000 to \$200,000 for the project.

Ms. LIMERICK. I would simply add that the goal of perfection is very expensive, that the pursuit of perfection would be prohibitive. But the pursuit of significant change and significant improvement, I think that is within the reach of manageable.

And again, I have been really struck by the pluck and spirit and originality of some of these groups in fighting multiple sources, whether that is a local sales tax or a district bond or something like that. It is really quite remarkable to me how many different funding sources can open up on that.

But what I wouldn't want is, well, that is exactly why we are here to have this discussion, is a standard of something close to perfection which is prohibitive in cost.

Mr. DUNCAN. What other incentives could we come up with or could communities come up with to encourage abandoned mine cleanup other than the Good Samaritan legislation that we are talking about?

Ms. LIMERICK. The matter of incentives, as an historian, to me is very interesting. I personally am privately a supporter of getting as many incentives into play as possible. But I do understand that there is, in some circles in the environmental community, a real anxiety that opening the door to financial profit from companies could return us to the late nineteenth century in a free-for-all. That seems to me as an historian an exaggerated fear.

But I do understand that we have to walk very carefully when we seem to be opening the door to market incentives for companies and re-mining is of course the trigger point for that.

My feeling is that there is an enormous financial benefit to companies who take part in this in public relations, and a really good set of community relations and good feelings from citizens, public officials, regulators. But I really come from our work to have a deep recognition of how jumpy that subject of market incentives and other financial rewards for people doing the right thing.

I am struck, one of the few people I know in this whole discussion who went back and read the Bible and read the Good Samaritan parable and thought, who is this Good Samaritan, it is very striking to see that the Good Samaritan not only helped the poor soul by the road, but then puts a lot of money into it, says to the innkeeper, I will be back here on my return trip and if you need more money I will give it to you. So if we go by the Bible, and I know I'm speaking in the wrong framework here, but there is a financial investment.

But I just think for the purposes of getting things moving, decoupling the Good Samaritan relief from the matter of funding that it is probably best not to read Luke at this point in time in our discussion.

Mr. DUNCAN. I think Mr. Mudge and Ms. Smith want to make comments. Mr. Mudge?

Mr. MUDGE. Frankly, the incentive for us is good will. We are always looking for good projects that we can show to the community and to really improve mining's reputation. We have done a project on the Carlin Trend, actually working with Trout Unlimited to improve the habitat for a threatened trout. There happens to be an abandoned mine also in this same drainage on BLM property. There has been some discussion about how we can help on that abandoned mine.

In an effort to holistically improve this whole drainage, it is something that we would be very interested in doing. And the good will and the reclamation awards we get out of it go a long way in our organization. But as we have talked before, there is the impediments and deterrents to doing that.

Mr. DUNCAN. Ms. Smith?

Ms. SMITH. Yes, Mr. Chairman. I think programs like Pennsylvania where there is transparency, there is planning, there is prior-

ity setting, they are looking on a watershed basis, they are engaging the public in mine cleanups, engaging experts, keeping—and doing that, I believe you can do that within the framework of consent agreements and within the framework of the Clean Water Act.

Mr. DUNCAN. So you believe the Pennsylvania program is a pretty good program?

Ms. SMITH. I think that might a model to learn from for other States. To look at a watershed basis, to prioritize, not to do a little bit over here, a little bit over there, but try to prioritize where small projects can get you the best result.

I also think that in some projects, and where you can identify ones that will be really truly small, where you are moving some waste, where you perhaps are not touching the water itself. I think for the ones that deal with discharges, then what the States, the Feds could do is step up to the plate and have someone who will be the keeper of the permit for perpetuity, because many of these sites, you are going to have to treat the acid mine drainage forever. You can't just build a facility and walk away.

That is one of the issues in terms of Penn Mine, was the best of intentions, but the facility they built was not engineered correctly, and it wasn't maintained. Then you ended up with more problems.

But if someone, if the State, if the local government wants to say, we will take the responsibility for the ongoing discharge, but we will take the help for the revegetation, the planting, the other kind of work, then those are the kinds of programs that you can have within the framework of the Clean Water Act now.

Mr. DUNCAN. All right. Mr. Woods.

Mr. WOOD. Perhaps for slightly different reasons than Velma mentioned, I think Pennsylvania also provides an outstanding model. We have done a lot of work there in the Kettle Creek watershed extending now into the West Branch. The two incentives that the State provides are, or three incentives, are the liability relief, which is real and significant, technical resources to help out these groups with planning, design planning and such, and then the last incentive, which is, it just can't be overstated, is financial resources. The State has made available, I think it is over \$650 million for their Growing Greener program to fund a lot of these cleanups.

Mr. DUNCAN. All right. Well, let me apologize to you once again. I am running late for another meeting now. You have been very helpful. I will say the same thing to you that I said to the first panel, that if you have additional comments or suggestions that would be helpful to us, we will keep the record open for just a few days, if you could get those to us by some time next week, they will be included in the record of the hearing. We will refer to them when we work on this legislation.

Thank you very much for being with us and that will conclude this hearing.

[Whereupon, at 12:17 p.m., the subcommittee was adjourned.]



Congressman Russ Carnahan (D-MO)
House Transportation Committee
Subcommittee on Water Resources & Environment
Hearing on Barriers to the Cleanup of Abandoned Mine Sites
Opening Statement
March 30, 2006

- Thank you, Mr. Chairman, for holding today's hearing on barriers to the cleanup of abandoned mines.
- There are hundreds of abandoned mines throughout the United States. Even though these mines are no longer operating, they still pose great environmental and health risks. These sites often contain toxic waste piles that leach into streams and the surrounding water table affecting water quality throughout the entire watershed. In my home state of Missouri, which at one time contained the largest lead reserves in the free world, we have many of these sites.
- While we can all agree that these sites need remediation, there are often obstacles that prevent the timely clean-up of these hazardous sites. I look forward to discussing these barriers today possible solutions to expedite the remediation of these areas.
- Thank you to all of our distinguished witnesses for being here today. I am sure your respective testimonies will be of great benefit to this committee.

STATEMENT OF
THE HONORABLE JERRY F. COSTELLO
SUBCOMMITTEE ON WATER RESOURCES AND ENVIRONMENT
HEARING ON BARRIERS TO THE CLEANUP OF ABANDONED MINE SITES
THURSDAY MARCH 30, 2006

Thank you, Mr. Chairman, for holding today's hearing on the barriers to the cleanup of abandoned mine sites and potential means for encouraging volunteers, or Good Samaritans, to clean up abandoned mines.

Coming from Illinois-in particular Southern Illinois- where coal is king, I know the importance of good remediation and clean up of abandoned mine land sites. It is important to recognize that abandoned mines can have negative impacts outside of the boundaries of the site where mining activities took place. For example, eroding tailings and/or contaminated water can be present and have toxic effects downstream from the site where mining, mineral processing and waste disposal occurred. Many abandoned mine sites pose physical safety, human health and/or environmental hazards, and are in need of cleanup.

Many communities have spoken to me about barriers to cleaning up these sites and ways to expedite and improve the process. A "Good

Samaritan" amendment to the Clean Water Act has been suggested to provide an incentive for voluntary cleanup of water quality impacts at abandoned mine land sites. Under this suggestion, a remediating agency would be protected from the liability of any continuing discharges from the reclaimed site provided that the remediating agency -- or "Good Samaritan"- - does not otherwise have liability for the site and attempts to improve the conditions at the site.

As a result, many questions remain-who should be responsible for clean up? What standards should apply? Who should be given Good Samaritan protections? Should it apply to public and/or private lands?

I continue to support the concept of encouraging the remediation of abandoned or inactive mined lands through a Good Samaritan program. I believe that we should encourage clean up of the maximum number of areas but should proceed cautiously when we define remediating parties; should provide clear and reasonable remediation standards; and should provide incentives for participation.

I want to again thank Chairman Duncan for calling this hearing and look forward to hearing from our witnesses.

Testimony by

PAUL FROHARDT
Administrator, Colorado Water Quality Control Commission

on behalf of
THE WESTERN GOVERNORS' ASSOCIATION
&
THE WESTERN STATES WATER COUNCIL
Regarding

Barriers to the Cleanups of Abandoned Mines

Before the
House Transportation & Infrastructure Subcommittee on Water Resources and the Environment

March 30, 2006

Mr. Chairman, and members of the Committee, thank you for the opportunity to appear before you today to discuss an issue of great importance to Western states—abandoned or inactive mines and the barriers that exist to the cleanup of these mines. Abandoned or inactive mines are responsible for many of the greatest threats and impairments to water quality across the Western United States. Thousands of stream miles are severely impacted by drainage and runoff from these mines, often for which a responsible party is unidentifiable or not economically viable.

Regulatory approaches to address the environmental impacts of abandoned or inactive mines are often fraught with difficulties, starting with the challenge of identifying legally responsible and financially viable parties for particular impacted sites. Mine operators responsible for conditions at a site may be long gone. The land and mineral ownership patterns in mining districts are extremely complex and highly differentiated. The surface and mineral estates at mine sites are often severed and water rights may exist for mine drainage. It is not uncommon for there to be dozens of parties with partial ownership or operational histories associated with a given site.

In view of the impacts on water quality caused by these abandoned mines and the difficulties in identifying responsible parties to remediate the sites, states are very interested in undertaking and encouraging voluntary “Good Samaritan” remediation initiatives, i.e., cleanup efforts by states or other third parties who are not legally responsible for the existing conditions at a site. However, “Good Samaritans” currently are dissuaded from taking measures to clean up the mines due to an overwhelming disincentive in the Clean Water Act.

To date, Environmental Protection Agency (EPA) policy and some case law have viewed abandoned or inactive mined land drainage and runoff as problems that must be addressed under

the section 402 National Pollutant Discharge Elimination system (NPDES) permit program. However, there is currently no provision in the Clean Water Act which protects a “Good Samaritan” that attempts to improve the conditions at these sites from becoming legally responsible for any continuing discharges from the mined land after completion of a cleanup project. This potential liability is an overwhelming disincentive to voluntary remedial activities to address the serious problems associated with inactive or abandoned mined lands.

The Western states have found that there would be a high degree of interest and willingness on the part of federal, state and local agencies, volunteer organizations and private parties to work together toward solutions to the multi-faceted problems commonly found on inactive mined lands if an effective Good Samaritan provision were adopted. Consequently, for over a decade Western states have participated in and encouraged—in cooperation with Congressional Offices, the environmental community, the mining industry, EPA, and other interested parties—efforts to develop appropriate Good Samaritan legislation. To date, The Western Governors Association and the Western States Water Council have focused on amending the Clean Water Act in order to eliminate the current disincentives that exist in the Act. While Western States believe that there could be benefits to addressing potential liabilities under a number of other environmental laws, they continue to believe that Clean Water Act liability is the primary obstacle to Good Samaritan cleanups taking place currently.

The Western States greatly appreciate recent efforts by EPA to examine and enhance administrative tools to facilitate Good Samaritan remediation efforts. However, Western States believe strongly that only a legislative solution can effectively address liability concerns, particularly for sites with draining adits, and therefore strongly encourage Congress to move forward on this issue.

Responses to Major Issues

Scope of “Remediating Party” Definition

The Western states believe that participation in Good Samaritan cleanups should not be limited solely to governmental entities, since there are many other persons likely willing to contribute to Good Samaritan cleanup initiatives. The states believe the statutory provisions should do the following:

- 1) broadly exclude those with prior involvement at the abandoned or inactive mine site;
- 2) broadly exclude those with current or prior legal responsibility for discharges at a site;
- 3) assure that any non-remediation-related development at a site is subject to the normal NPDES rules, rather than the Good Samaritan provision; and
- 4) be narrowly enough constructed to minimize fears over potential abuses of this type of discharge permit.

Citizen Suit Enforcement

The citizen suit enforcement tool has proven to be a useful incentive to encourage permit compliance by point source dischargers subject to the NPDES program. From the outset of development of the Good Samaritan proposal, the states have believed that a different set of enforcement tools is warranted for Good Samaritan permittees. Other permittees are required to

get permits because they are undertaking activities that cause pollution, and a policy decision has been made that a broad array of enforcement tools are appropriate to assure that these polluting activities are adequately controlled. A Good Samaritan is not a “polluter,” but rather an entity that voluntarily attempts to step in and remediate pollution caused by others. In this case, sound public policy needs to be focused on creating incentives for the Good Samaritans’ actions, not on aggressive enforcement that creates real or perceived risks to those that might otherwise undertake such projects. It is clear that the perceived risk of citizen suit action is currently a major disincentive for such efforts.

Standard for Cleanup

An important issue that any Good Samaritan bill will need to address is the standard to which sites need be cleaned. The states believe only those Good Samaritan projects that will result in significant improvements should be approved, but recognize the difficulty in legislatively defining such terms as “significant.” EPA should approve a permit only if it determines that the remediation plan demonstrates with reasonable certainty that the actions will result in an improvement in water quality to the degree reasonably possible, taking into consideration the resources available to the remediating party for the proposed project. Clearly, states and others will have no reason to undertake the expense of a cleanup project unless they believe that meaningful water quality improvement will result.

The analysis of a proposed project needs to occur at the front end of a project. Once there is agreement that a project is expected to result in water quality improvement, with no reasonable likelihood of resulting in water quality degradation, the Good Samaritan’s responsibility must be defined as implementing the approved project rather than, e.g., meeting specific numerical effluent limits. The exception to this structure that the states agree upon pertains to early termination of a permit due to unforeseen conditions. In such cases, the states agree that the conditions at the site must be no worse than the original baseline conditions, before the permit can be granted early termination.

Scope of Mining Sites Addressed

The Good Samaritan proposal was developed initially with a focus principally on impacts from abandoned or inactive hardrock mines in the Western United States. However, the Western states recognize that there are also remaining challenges regarding the remediation of abandoned or inactive coal mines. Therefore, the states accept that the proposed definition of “abandoned or inactive mined lands” could be drafted to include coal sites eligible for reclamation or drainage abatement expenditures under the Surface Mining Control and Reclamation Act (SMCRA). However, to avoid interference with complex issues regarding the implementation of SMCRA, the definition should not include sites under Title V of SMCRA where mining has occurred subsequent to SMCRA’s adoption. The Western Governors’ Association would have concerns with efforts to allow Good Samaritan permits for lands regulated under Title V of SMCRA. The states advocate that any Good Sam bill include a provision exempting state AML programs certified under SMCRA from having to obtain a Clean Water Act – Good Samaritan permit. SMCRA-certified AML programs already receive liability protections, and the states want to ensure that these SMCRA protections are preserved.

Search for Parties with Existing Liabilities

States agree on requiring that the Good Samaritan "remediation plan" include a summary of the results of a reasonable effort to identify parties whose past activities have affected discharges at the site. Additionally, states agree that the Administrator should make a determination that no identifiable, financially viable, owner or operator exists before issuing a permit. States further agree that existing liabilities for mined lands should not be affected by the proposal.

Remining

The Western states find that, while providing incentives for remining is an important topic that warrants further public discussion and analysis, the issue brings into play policy considerations and stakeholders that go well beyond those involved in Good Samaritan remediation issues. Aside from the stated opposition a remining provision would bring, it would also necessarily involve other statutes beyond the Clean Water Act and thus trigger other congressional committee jurisdictions, all of which would greatly complicate enactment of a Good Samaritan provision. In developing a Good Samaritan proposal, Western states believe it is appropriate to allow limited incidental reprocessing of tailings or waste rock piles to take place on a Good Samaritan site, so long as the revenues which result from such reprocessing would go toward offsetting the total costs of remediating the site.

Delegation Authority

The Western states support including authority to the EPA Administrator to delegate permitting authority to states. This is consistent with the remainder of the NPDES program, which already results in a number of instances where one state agency issues an NPDES permit to another state agency. At a minimum, the program should be delegable to states where the remediating party is not a state government agency.

If Good Samaritan permits can only be issued by the Administrator, it will be important to clarify the states' and tribal roles in this process when entities other than states act as remediating parties. The Western states believe the proposal should include a requirement that the Administrator only issue a permit with the concurrence of the applicable State or Indian tribe. By "concurrence," the states mean that a permit shall not be issued or modified unless the EPA Administrator and the applicable State, and if appropriate, the applicable Indian Tribe, have agreed to all terms specified in the permit.

Funding for Remediation

Historically, Section 319 funds have been utilized for a number of projects remediating inactive and abandoned mined lands. To assure that 319 funds will continue to be available for such cleanup projects, any Good Samaritan proposal should include a provision clarifying that 319 funds may be used for projects subject to Good Samaritan permits. Such provision would not be intended to change the current 319 allocation formula or a state's prioritization of projects under a state nonpoint source management program.

Conclusion

The Western governors have consistently identified the Good Samaritan provision as one of their high priorities regarding water quality. The Western states urge Congress to proceed

with the adoption of a Good Samaritan provision that, at a minimum, will allow states to proceed on Good Samaritan cleanups. Congress should avoid expanding the Good Samaritan proposal to extraneous issues such as remining or a general fee on mining. The Western states are frankly concerned that efforts to expand the scope of this program are likely to generate significant opposition that may further delay or frustrate the ability to get this needed and widely supported proposal adopted into law. As soon as a law is passed allowing Good Samaritan cleanups of abandoned or inactive mines, water quality will begin to improve in the West!

Comments on Behalf of State of Colorado

Finally, I would like to summarize the State of Colorado's position on Good Samaritan issues as articulated by Governor Owens. Governor Owens is on record in support of S.1848, the Cleanup of Inactive and Abandoned Mines Act, introduced by Senators Allard and Salazar. We believe that this bill provides a thoughtful and balanced approach to the range of issues and options that have been discussed.

Colorado's Minerals, Energy and Geology Policy Advisory Board supported the concept of Good Samaritan legislation in 1996. Colorado also has actively encouraged remining as a form of environmental clean up since the Colorado Mining Summit in 1987.

For us, this is not an academic debate about appropriate legislative language. If a Good Samaritan bill is enacted, water quality in Colorado could improve during the next available construction season. Our state Division of Minerals and Geology has several projects that it has put on hold due to liability concerns. These projects will be revived if legislation is passed. In addition, there are numerous public, private, governmental and non-profit groups and entities in Colorado anxious to pursue remediation projects in several of our river basins as soon as the Good Samaritan liability issue is resolved.

The State of Colorado urges Congress to move forward with S.1848 as the basis for Good Samaritan legislation.

Attachments

- Examples of Abandoned or Inactive Mines which have been Assessed for Remediation in Western States
- WGA Policy Resolution 04-10 "Cleaning Up Abandoned Mines"

ATTACHMENT TO PAUL FROHARDT'S TESTIMONY

Examples of Abandoned or Inactive Mines
which have been Assessed for Remediation in Western States

The following cleanups have been postponed due to potential NPDES liability.

*California*Penn Mine Copper mine, Calaveras County

Because of a lawsuit in the 1990s, the Central Valley Board was compelled to do major remediation because the court found the Board was an NPDES discharger based on remedial work it did in the 1970s. Remediation is nearly complete, but the Board risks liability for residual seeps and other discharges.

Walker Mine Copper Mine, Plumas County

Regional Board spent over 30 years unsuccessfully suing the mine owner to cleanup acid mine drainage discharge that sterilized a creek. Finally, the Board plugged mine shaft and accepted settlement from mine owner's estate. The Board remains liable for any point source discharge that may occur from the plug.

Buena Vista/Klau Mine Mercury Mine, San Luis Obispo County

Central Coast Board has unsuccessfully tried to secure cleanup from mine owner for over 20 years. These mines are the source of 80 percent of mercury pollution in Nacimiento Reservoir, which is under a fishing advisory. US EPA is willing to do cleanup on condition California takes over the long-term operation and maintenance. The state is unwilling to accept liability for NPDES discharges at site and so relieve the recalcitrant mine owner of responsibility. Cleanup may be delayed until potential state liability is resolved.

Mt. Diablo Mine Mercury Mine, Contra Costa County

Owner discovered mine after spending entire savings to buy land for a residence. Mine pollution has sterilized a creek and caused a fishing advisory in a nearby reservoir. With liability protection, a government agency could do partial remediation to significantly reduce pollutant discharges from the site. Without liability protection it is likely no remediation will occur.

Stowell Mine, Keystone Mine, and Mammoth Mine, Shasta County

In 1991, the Board secured \$1 million from the State Cleanup Account to hire consultants to perform remedial work at those three mines. Although a responsible party eventually came forward to take remedial action, the Board decided to return the funds rather than apply them to mine cleanup because of liability concerns (brought on by the Penn Mine case.)

Balaklala and Shasta King Mines, Shasta County

These mines discharge abandoned mine drainage to West Squaw Creek, a tributary to Shasta Lake. Impacts include elimination of aquatic life in the stream below the mines, frequent fish

kills where the stream enters Shasta Lake and degradation of recreational/aesthetic uses in this part of the National Recreation Area. The owner, Alta Gold Company, has performed some remedial work but final site restoration is probably beyond their capability. There is a unique opportunity here for Alta Gold to sell the property to the public resource agencies for development of an off-road vehicle park with funds from the sale to be used for mine drainage control. This arrangement could provide substantial funds for problem solution but is presently not being actively pursued due to the liability issue.

Mammoth Mine, Shasta County

This large abandoned copper mine discharges abandoned mine drainage to Little Backbone Creek and Shasta Lake. Impacts are similar to those previously described for the West Squaw Creek mines. The owner, Mining Remedial Recovery Company, has implemented a comprehensive mine sealing program but the results to date have been disappointing. Substantial modification of the sealing program or a new control strategy, such as collection and treatment, will be required to address the problem. The issue is further complicated by a lawsuit filed by the California Sport Fishing Protection Alliance. We believe that a cooperative effort at Mammoth Mine between the owners, resource protection groups, and the agencies would be more effective than lawsuits and enforcement orders.

Greenhorn Mine, Shasta County

this acid mine west of Redding discharges abandoned mine drainage to Willow Creek which is a tributary to the Wiskeytown Lake National Recreation Area. The discharge impacts aquatic life and recreational uses in the area. There is no responsible owner capable of implementing a control program. A reclamation feasibility study has been prepared by the Department of Water Resources (under contract to Regional Board), but no work has been done. Water quality and beneficial use improvements could be achieved through a combination of surface drainage control and mine sealing.

Corona Mine and Abbott Mine, Lake County

These two mercury mines would each benefit from actions to contain tailings and solid wastes and to divert surface waters. Staff estimates a cost of \$1-2 million per mine.

Afterthought Mine, Shasta County

Proposed actions at this mine include sealing the multiple portals, removing and covering the tailings pond, and rehabilitating the access road.

Bully Hill Mine, Shasta County

Staff proposes solid waste containment and portal sealing at this site.

- S. 1787 would also support watershed cleanups. US EPA is working on regulations to permit publicly owned sewage treatment works (POTWS) to cleanup pollution within a watershed as an alternative to removing pollutants that exist at very low levels in the POTWS' discharge. This will provide much greater removal of pollutants from watersheds and will help California comply with its mandate to implement Total Maximum Daily Load allocations. However, POTWS are not likely to cleanup abandoned mines under a watershed program unless they get some liability protection.

Colorado

St. Kevin Gulch, Lake County

The St. Kevin Gulch project is located northwest of Leadville in the small perennial drainage known as St. Kevin Gulch. Mine drainage from the lower Griffin Tunnel flows as a series of springs from the waste rock pile approximately two miles above the confluence of St. Kevin Gulch and Tennessee Creek. The mine drainage has a pH of 2.6 to 2.9 and has rendered St. Kevin Gulch virtually devoid on any aquatic life below the drainage, and has an adverse effect on trout reproduction in Tennessee Creek. The mine drainage is to be treated using a combination of an anoxic limestone drain and a sulfate reducing bioreactor (wetland). An interceptor trench has been completed to help site the treatment system. The project is in the final design state. Commitments for materials, labor, services, and cash were obtained from local individuals, Lake County, and the USGS. These commitments have at least partially been withdrawn and the project postponed because of concerns about assumption of liability.

McClelland Tunnel, Clear Creek County

The McClelland Tunnel project is located along Interstate 70, one-half mile southeast of the town of Dumont. The McClelland Tunnel drains approximately 15 gallons per minute of metal laden water into Clear Creek. The site also contains mine and mill waste along Clear Creek, a county road, and a State Highway. The Colorado School of Mines, Department of Transportation, Department of Public Health and Environment, Clear Creek County, and Coors have been collaborating with DMG on this project. The DMG's part of the project is to construct a small sulfate reducing bioreactor and a small aerobic wetland to treat the mine drainage. Final designs for the water treatment aspects of the project have been prepared and are ready to be bid. The project portion has been halted because of the concern of the State for incurring perpetual liability for maintaining the treatment system.

Perigo, Gilpin County

The Perigo project is located approximately 6 miles north of Central City in a small perennial stream known as Gamble Gulch. The Perigo mine drains an average of 70 gallons per minute of pH 2.9-3.9 metal laden water. Gamble Gulch below the mine drainage is virtually devoid of aquatic life for six miles before its confluence with South Boulder Creek. In 1989 and 1990, a small project was completed in this drainage to remove mine waste rock and mill tailings from the stream bed in two locations and construct a test treatment system at the Perigo mine. The proposed treatment techniques for this site include an aqueous lime injection system, settling pond and sulfate reducing bioreactor, which will be capable of treating all the mine drainage. The design for the project is completed but will not be bid out for construction because the state is concerned about incurring perpetual liability for maintaining the treatment system.

Pennsylvania Mine, Summit County

The Pennsylvania Mine project is located just east of Keystone ski area on Peru Creek. Acidic metal laden water drains from caved mine workings making the creek biologically dead. Through a 319 grant from EPA, DMG has installed an innovative hydro-powered water treatment mechanism and a settling pond. The drainage water is diverted from the mine adit into a hydropower turbine, thus generating the power to drive a feeder that doses limestone to buffer the water. Once in the pond metal precipitate can settle out, and the effluent progresses through three wetland cells. Here, sulfate reducing bacteria and low oxygen waters remove much of the

remaining acid and metal. The project is 80% complete with only a redesigned feeder mechanism necessary. The project is on hold pending resolution of NPDES liability issues.

Animas River Mine Sites, San Juan County

The Division of Minerals and Geology in conjunction with the Animas River Stakeholders Group has investigated hundreds of mine sites in the vicinity of Silverton. The resulting feasibility reports for Mineral Creek, Cement Creek, and the Animas River have identified at least 32 sites having a significant impact on the Animas River water quality. Treatment recommendations have been made but project work can not proceed until the NPDES issue is resolved.

Frank Hough Mine, Hinsdale County

The Frank Hough Mine is located in Palmetto Gulch near the top of Engineer Pass in Hinsdale County. The water quality of Palmetto Gulch and Henson Creek (the receiving stream) was investigated in 2005. The water quality analysis shows that runoff from the Frank Hough Mine is one of the main sources of heavy metals during spring snowmelt. During low-flow periods, the Frank Hough Mine drainage is a significant source of heavy metals. This site is at an elevation of 12,700 feet, which severely limits access and also limits the available treatment options.

Dinero Tunnel, Lake County

Dinero Tunnel is located in Sugarloaf Gulch approximately 1/4 mile southwest of the Turquoise Lake Dam in Lake County. This is a cooperative project with the Lake Fork Watershed Group and BLM. The Dinero Tunnel drains approximately 40-45 gallons per minute of metal laden water into the Lake Fork of the Arkansas. Previous investigations had shown that there was a collapse damming the water approximately 400 feet from the entrance. The collapse had formed a chimney that extended to the surface approximately 100 feet above. Work to remove the blockage in the adit to facilitate underground investigation of inflows was completed in the fall of 2004. Water behind the collapse was drained slowly and treated, and then the tunnel was rehabilitated. During the summer of 2005, the Dinero Tunnel Underground Phase II project installed compressed airline for oxygen ventilation in the tunnel and rehabilitated the tunnel up to 2000 feet. At 2000 feet the tunnel contains another cave-in, which extends laterally for at least 150 feet. Treatment and hydrologic control methods are being considered at this site with NPDES issues also needing to be resolved.

Commodore Mine/Nelson Tunnel, Mineral County

The Commodore Mine and Nelson Tunnel are located 1 mile north of Creede in Mineral County. This is a long-term cooperative project with the Willow Creek Reclamation Committee (WCRC) near Creede, Colorado. Nine open connections between the Commodore Mine and the Nelson Tunnel have been identified and rehabilitated. Approximately three miles of mine workings have been rehabilitated. Current work is to install the infrastructure to pump the flooded portion of the Nelson Tunnel. This is the area where historic documents have indicated that the majority of the flow enters the Nelson Tunnel workings. Currently, these workings are completely flooded and are inaccessible. The Nelson Tunnel drainage is the principal source of metals to Willow Creek. The feasibility of constructing hydrologic controls will be investigated. Hydrologic controls may reduce the flow from the Nelson Tunnel, but it is doubtful that all the

acid mine drainage can be eliminated by construction of hydrologic controls and other treatment methods have significant liability concerns.

Solomon Mine, Mineral County

The Solomon Mine is located in East Willow Creek approximately 2 miles north of Creede in Mineral County. A sulfate reducing wetland was constructed to treat the mine drainage in 1991. The Solomon Mine drainage is the largest source of zinc and cadmium in East Willow Creek. The sulfate reducing wetland worked well for several years, but without maintenance is currently providing very little treatment. The Willow Creek Reclamation Committee is very interested in resurrecting the wetland system, but has been unable to reconstruct the system because of liability concerns.

Carbonero Mine, San Miguel County

The Carbonero Mine is located in San Miguel County near the small mining town of Ophir. The Carbonero mine drains in excess of 1,000 gallons per minute. Metals concentrations are relatively low, but because of the high flow the metal loading to the Howards Fork is very high. There has been considerable interest in the past to use the mine drainage to generate power because of the high flow rate and over 2,000 feet of relief from the mine to the Howards Fork. Power generation can offset or partially offset the cost for treating the mine drainage should liability concerns be addressed.

Mary Murphy Mine, Chaffee County

The Mary Murphy Mine is located near the small mining town of St. Elmo in Chaffee County. The Mary Murphy Mine drains metal laden water from two different portals. Underground water quality sampling has shown that over 70% of the metals in the mine drainage come from one inflow in the mine at the 1400 level. The purpose of this project is to determine if the main inflow source of water can be diverted inside the mine before it become contaminated. To date, all of the accessible mine workings have been investigated, and the contaminated water flow has been followed up to the 1000 level. Initial water sampling has indicated that the zinc level is as high at the 1000 level as at the 1400 level. Currently, DMG is investigating the potential to freeze the upper mine workings. The first step in this process was to install air-locks on the 2200 level and on the 1400 level. The 1100 level was opened and safeguarded to prevent access while allowing airflow. The temperatures are being monitored to see if the mine cools or warms as a result. If this natural ventilation of the upper levels does not work, consideration will be given to installing and running a fan during the winter months. Other treatment methods would be investigated if liability concerns could be addressed.

Montana

The State of Montana has inventoried its abandoned non-coal mine sites. Thus far, Montana has found 245 abandoned mines which have the potential to impact surface waters because they are within 100 feet of a stream. Of these, 71 sites have discharging adits (mine entrances emitting acid mine drainage into the environment). 89 of 245 sites are already known to be degrading water quality. These 89 sites have caused downstream water quality samples to exceed at least one Clean Water Act parameter—either the Maximum Contaminant Limits or Aquatic Life Standards.

Given recent developments in federal case law, Montana officials are gravely concerned that cleanup projects addressing abandoned mines which are known to be seriously degrading the state's water quality will be halted due to Clean Water Act liability concerns.

Nevada

Tybo Tailings Site, Nye County, Nevada

The Tybo Tailings Site is located in the Tybo mining district in Nye County, Nevada. It is approximately 58 miles east of Tonopah on U.S. Highway 6 and thence 6.5 miles northwest on the Central Nevada Test Sites Base Camp access road. The site is located in the Hot Creek hydrographic basin. Tybo Creek flows from Tybo Canyon in the Hot Creek Range and then easterly into the Hot Creek Valley. The tailings are the result of mining activity, which began around 1866. Silver, lead, zinc, copper, mercury, and small amounts of gold were recovered. By 1877, Tybo was the second largest lead producing area in the United States after Eureka, Nevada. Production continued on an intermittent basis until around 1940. Some very minor production occurred in the 1950's and early 1960's. Total recorded production from the district is valued at over \$9 million.

The tailings impoundment is located just downstream from the mouth of Tybo Canyon. The actual impoundment is located in an ephemeral wash and is about 1,000 feet long and up to 600 feet wide (approximately 12 acres total). The dam has been breached, allowing tailings to migrate down the creek for at least 6 miles. The tailings appear to be about 20 feet thick at the dam. The tailings are highly acidic (surface water on the tailings has a pH of 1-3), have a strong sulfur smell, and are stained brown-orange to purple, red and black. Surface water has eroded channels into the tailings. All vegetation along the migration path from the impoundment is stressed or dead for at least 3 miles downstream.

Preliminary studies have detected arsenic and lead range up to 10,000 ppm, zinc up to 7,500 ppm, and copper up to 233 ppm. At this time, the State of Nevada has recommended evaluating groundwater use and the habitat of threatened and endangered species. Additional recommendations include measures to prevent wildlife from drinking surface water, and restricting site access by fencing and gating. NDOW has expressed concern about the effects on plants and wildlife and groundwater.

Rip Van Winkle Mine, Elko County, Nevada

The Rip Van Winkle Mine site is located in the Merrimac mining district, Elko County, Nevada. The site is located at approximately 7,000 feet above mean sea level on Lone Mountain in the Independence Mountains, and is situated in the Maggie Creek Area hydrographic basin, which flows into the Humboldt River near Elko, Nevada. The Rip Van Winkle Mine recorded first production in 1918. It was the only active producer in the district after 1949 with limited production of lead, zinc and silver through 1966.

The mine site consists of shafts and underground workings, a mill, building foundations and several cabins, waste dumps and tailing impoundments. The tailings impoundments cover approximately 3 acres and contain acid-generating materials. Vegetation on the site is sparse and in the vicinity of the tailings, plants show signs of stress. Impacts to Humboldt River flows are unknown at present, but may be impacting endangered species.

Norse-Windfall Mill Site, Eureka County, Nevada

The Norse-Windfall Mill Site is located 5 miles south of Eureka, Nevada. It is located in the Diamond Valley hydrographic basin in which perennial springs are prolific in the mountainous regions south of Eureka, with many flowing springs existing at the mill site. The Windfall Mine was discovered in 1908, and was operated intermittently for about 30 years as an underground operation with a cyanide vat leach facility. Around 1968, Idaho Mining Corp. acquired the property and mined the same ore body via open pit methods. Between 1975 and 1978 the Windfall Pit, and associated cyanide heap-leach piles, waste dumps, mill process building, office and laboratory were constructed. The last operator of the site was Norse Windfall Mines, Inc. The site has been abandoned since 1989 and little or no reclamation has occurred. In July 1994, the Nevada Division of Environmental Protection conducted a compliance inspection of the site and noted that unmaintained process components and materials left scattered about the property may have the potential to cause environmental damage by degrading the waters of the state.

Springs located within the site exceed the Nevada Water Quality Standards for arsenic, mercury, nickel, and cyanide. Within a 4-mile radius of the site, six municipal springs and one domestic well provide drinking water for Eureka. Water from the nearby springs are blended and pumped into 2 water tanks located just outside of Eureka. This water serves as the main water supply for the entire town.

South Dakota

In the early 1990's, South Dakota completed an inventory of abandoned hardrock mines occurring in the Black Hills of western South Dakota in conjunction with the South Dakota School of Mines and Technology. Approximately 900 mines were identified in a four-county area (about 700 on private land and about 200 on federal land). The inventory purpose was primarily to identify abandoned mine locations, so little or no assessment work was completed for many of the mines identified. Many of these historic mines pose significant safety hazards, and some pose environmental problems, including impacts to water quality. The Good Samaritan bill would certainly be an incentive for getting some of these mines cleaned up.

South Dakota has been working on reclaiming several hardrock mines that occur in the Black Hills with EPA and the federal agencies that administer the land upon which the mines are located. Several mines have been reclaimed, including the Belle Eldridge gold mine (BLM land), the Minnesota Ridge gold mine (Forest Service and private land), and the Blue Lagoon uranium mine (Forest Service land). The state is working with the Forest Service in developing plans to reclaim the following mines:

Riley Pass Mine (Harding County)

The Riley Pass uranium mine (Forest Service land) is located in the northwest corner of the state. The main hazards associated with the mine are eroding waste material high in radioactivity and heavy metals and unstable highwalls. In the 1990s the Forest Service began to take steps to minimize impacts at some of these sites by constructing sediment ponds to capture contaminated sediment, notably at the Riley Pass mine in the North Cave Hills. These ponds were cleaned periodically and the material stored in an on-site repository. The Forest Service is currently working on an environmental evaluation and cost estimate for the site.

The King of the West Mine (Pennington County)

The King of the West gold mine is located approximately 20 miles west of Rapid City. The main hazards associated with the King of the West mine include eroding unvegetated tailings, acid mine drainage, and unfenced mine shafts. These hazards have been documented in a report developed for the Forest Service by the South Dakota School of Mines and Technology. They recommended the King of the West Mine as a priority site for remediation in the Black Hills.

Freezeout Mine (Fall River County)

The Freezeout uranium mine is located approximately 14 miles northwest of Edgemont. The main hazards associated with the Freezeout mine are unstable pit highwalls, erosion, and waste material with high radioactivity. The Forest Service has completed a preliminary assessment and site investigation for the mine.





WGA Policy Resolution 04-10

Cleaning Up Abandoned Mines

June 22, 2004
Santa Fe, New Mexico

A. **BACKGROUND**

1. Inactive or abandoned mines are responsible for threats and impairments to water quality throughout the western United States. Many also pose safety hazards from open adits and shafts. These historic mines pre-date modern federal and state environmental regulations which were enacted in the 1970s. Often a responsible party for these mines is not identifiable or not economically viable enough to be compelled to clean up the site. Thousands of stream miles are impacted by drainage and runoff from such mines, one of the largest sources of adverse water quality impacts in several western states.
2. Mine drainage and runoff problems are extremely complex and solutions are often highly site-specific. Although cost-effective management practices likely to reduce water quality impacts from such sites can be formulated, the specific improvement attainable through implementation of these practices cannot be predicted in advance. Moreover, such practices generally cannot eliminate all impacts and may not result in the attainment of water quality standards.
3. Cleanup of these abandoned mines and securing of open adits and shafts has not been a high funding priority for most state and federal agencies. Most of these sites are located in remote and rugged terrain and the risks they pose to human health and safety have been relatively small. That is changing, however, as the West has gained in population and increased tourism. Both of these factors are bringing people into closer contact with abandoned mines and their impacts.
4. Cleanup of abandoned mines is hampered by two issues -- lack of funding and concerns about liability. Both of these issues are compounded by the land and mineral ownership patterns in mining districts. It is not uncommon to have private, federal, and state owned land side-by-side or intermingled. Sometimes the minerals under the ground are not owned by the same person or agency that owns the property. As a result, it is not uncommon for there to be dozens of parties with partial ownership or operational histories associated with a given site.
5. Recognizing the potential for economic, environmental and social benefits to downstream users of impaired streams, western states, municipalities, federal agencies, volunteer citizen groups and private parties have come together across the West to try to clean up some of these sites. However, due to questions of liability, many of these Good Samaritan efforts have been stymied.

- a. To date, EPA policy and some case law have viewed inactive or abandoned mine drainage and runoff as problems that must be addressed under the Clean Water Act's (CWA) Section 402 National Pollutant Discharge Elimination System (NPDES) permit program. This, however, has become an overwhelming disincentive for any voluntary cleanup efforts because of the liability that can be inherited for any discharges from an abandoned mine site remaining after cleanup, even though the volunteering remediating party had no previous responsibility or liability for the site, and has reduced the water quality impacts from the site by completing a cleanup project.
 - b. The western states have developed a package of legislative language in the form of a proposed amendment to the Clean Water Act. The effect of the proposed amendment would be to eliminate the current disincentives in the Act for Good Samaritan cleanups of abandoned mines. Throughout development of legislation, the states have received extensive input from EPA, environmental groups, and the mining industry.
 - c. During the 106th Congress, a bi-partisan Good Samaritan bill was introduced that was largely based on the WGA proposal. WGA supported the bill, S. 1787.
6. Liability concerns also prevent mining companies from going back into historic mining districts and re-mining old abandoned mine sites or doing volunteer cleanup work. While this could result in an improved environment, companies which are interested are justifiably hesitant to incur liability for cleaning up the entire abandoned mine site.

B. GOVERNORS' POLICY STATEMENT

Good Samaritan

1. The Western Governors believe that there is a need to eliminate disincentives, and establish incentives, to voluntary, cooperative efforts aimed at improving and protecting water quality impacted by abandoned or inactive mines.
2. The Western Governors believe the Clean Water Act should be amended to protect a remediating agency from becoming legally responsible under section 301(a) and section 402 of the CWA for any continuing discharges from the abandoned mine site after completion of a cleanup project, provided that the remediating agency -- or "Good Samaritan"-- does not otherwise have liability for that abandoned or inactive mine site and attempts to improve the conditions at the site.

3. The Western Governors believe that Congress, as a priority, should amend the Clean Water Act in a manner that accomplishes the goals embodied in the WGA legislative package on Good Samaritan cleanups. S.1787 from the 106th Congress is a good starting point for future congressional deliberations of Good Samaritan legislation.

Cleanup and Funding

4. The Governors encourage federal land management agencies such as the Bureau of Land Management, U.S. Forest Service, and National Park Service, as well as support agencies such as the U.S. Environmental Protection Agency, the U.S. Geological Survey, and the U.S. Army Corps of Engineers to coordinate their abandoned mine efforts with state efforts to avoid redundancy and unnecessary duplication.
5. Reliable sources of funds that do not divert from other important Clean Water programs should be identified and made available for the cleanup of hardrock abandoned mines in the West.
6. The Western Governors continue to urge the Administration and Congress to promptly distribute to states abandoned coal mine land funds in the Abandoned Mine Reclamation Trust Fund, including accumulated interest, collected under Surface Mining Control and Reclamation Act of 1977. In addition, the Western Governors urge the Administration and Congress to continue funding the mitigation of mine scarred lands through dedicated funding under the Small Business Liability Relief and Brownfields Revitalization Act of 2002.
7. The U.S. Army Corps of Engineers can provide valuable services in assisting the states and the federal government to clean up abandoned, inactive, and post-production non-coal mine sites. The Governors support legislation that authorizes the Corps, through their Restoration of Abandoned Mine Sites (RAMS) program, to undertake and fund cleanup activities, including the closure of safety hazards, at such sites. In states where an AML program is authorized under Title IV of the Surface Mining Control and Reclamation Act (SMCRA), funding from the Corps should be administered by the authorized state program. The Corps should consult with state and federal agencies with administrative and programmatic jurisdiction

C. GOVERNORS' MANAGEMENT DIRECTIVE

1. This resolution is to be posted on the Western Governors' Association website and it should be referenced and used as appropriate by Governors and staff.
2. WGA shall work with Congress, the Administration, and affected stakeholder groups to pursue enactment of Good Samaritan legislation consistent with the WGA proposal.
3. WGA shall continue to work cooperatively with the National Mining Association, federal agencies, and other interested stakeholders to examine other mechanisms to accelerate responsible cleanup and securing of abandoned mines.

This resolution was originally adopted as Policy Resolution 98-004 in 1998 and readopted in 2001 as 01-15.

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**TESTIMONY OF
BENJAMIN H. GRUMBLES
ASSISTANT ADMINISTRATOR FOR WATER
U.S. ENVIRONMENTAL PROTECTION AGENCY
BEFORE THE
SUBCOMMITTEE ON WATER RESOURCES AND ENVIRONMENT
COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE
U.S. HOUSE OF REPRESENTATIVES**

March 30, 2006

Good Morning Mr. Chairman and Members of the Subcommittee, I am Ben Grumbles, Assistant Administrator for the Office of Water at the United States Environmental Protection Agency (EPA). Thank you for the opportunity to discuss an important issue facing the United States -- impaired watersheds and legacy impacts from abandoned mines.

The Abandoned Mine Problem

Inactive or abandoned mine sites can pose serious public safety and environmental hazards. The good news is that there are significant resources available through voluntary efforts to remediate these sites and address safety and environmental problems. Unfortunately, as a result of avoidable legal obstacles, we have been unable to take full advantage of opportunities to promote cooperative conservation through partnerships that will restore and enhance abandon mine sites throughout the United States.

According to estimates, there are over half a million abandoned mines nationwide, most of which are former hardrock mines located in the western States. Acid mine drainage from abandoned mines is responsible for damaging watersheds and degrading water quality throughout the United States. Moreover, abandoned mines are among the largest sources of pollution degrading water quality.

Mine drainage and runoff problems can be extremely complex and solutions are often highly site specific. In many cases, the parties that are responsible for the pollution and cleanup of these mines no longer exist. However, over the years, an increasing number of Good Samaritans, who are not responsible for the pollution, have stepped forward on a voluntary basis to cleanup these mines. Through their efforts, we can help restore watersheds and improve water quality.

Liability

The threat of liability, whether under the Clean Water Act (CWA) or the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), can be an impediment to voluntary remediation. A private party cleaning up a release of hazardous substances might become liable as either an operator of the site, or as an arranger for disposal of the hazardous substances. Under the CWA, a party may be obligated to obtain a discharge permit which requires compliance with water quality standards in streams that are already in

violation of these standards. The potential assignment of liability occurs even though the party performing the cleanup did not create the conditions causing or contributing to the degradation. Addressing this liability threat will encourage more Good Samaritans to restore watersheds impacted by acid mine drainage.

Partial cleanups by Good Samaritans will result in meaningful environmental improvements and will accelerate achieving water quality standards. Yet, in many cases, the impacted water bodies may never fully meet water quality standards, regardless of how much cleanup or remediation is done. By holding Good Samaritans accountable to the same cleanup standards as polluters or requiring strict compliance with the highest water quality standards, we have created a strong disincentive to voluntary cleanups. Unfortunately, this has resulted in the perfect being the enemy of the good. However, by removing this threat of liability, we will encourage more voluntary and collaborative efforts to restore watersheds impacted by acid mine drainage.

Let me emphasize, however, encouraging Good Samaritan cleanups is not about lowering environmental standards nor letting polluters off the hook. Good Samaritans should be held to a realistic standard that results in environmental improvements. And those responsible for the pollution, if still in existence, will remain accountable, consistent with the Agency's "polluter pays" policy.

Cooperative Conservation and EPA's Good Samaritan Initiative

President Bush's August 2004 Executive Order on Cooperative Conservation requires federal agencies to ensure -- when taking actions that relate to the use, protection, enhancement, and enjoyment of our natural resources -- that the agencies will engage in collaborative partnerships with State, local, and tribal governments, private for profit and nonprofit institutions, and other non-government entities and individuals.

Last August, as part of the President's Cooperative Conservation conference, EPA's Administrator Steve Johnson announced the Good Samaritan Initiative as a means to encourage more effective voluntary efforts to remediate damage from abandoned mines.

The Good Samaritan Initiative accomplishes this objective by empowering communities and grass-roots organizations to confront environmental challenges. Encouraging voluntary Good Samaritan cleanups at abandoned mine sites is a key component of the Administrator's Action Plan, and is fully consistent with President Bush's commitment to cooperative conservation. The Good Samaritan initiative is intended to remove legal impediments that have hindered the remediation of sites threatened by abandoned mine runoff and accelerate the progress of environmental restoration. EPA strongly believes that liability should rest squarely on parties responsible for the environmental damage, not on those who are trying to clean it up.

Good Samaritan Tools

Under EPA's Good Samaritan Initiative, we are developing a model Good Samaritan Agreement and comfort/ status letter that can be used to provide greater legal certainty to a volunteer while also providing adequate assurances to the Agency that a cleanup will be performed properly. We are also working closely with our Federal land management agencies and State partners to encourage, where appropriate, greater use of voluntary cleanup programs for abandoned mine remediation. In addition, we are working on guidance that will help Good Samaritans understand our interagency approach to these cleanups. We expect to announce our administrative toolbox in the very near future to provide Good Samaritans further guidance and options on cleaning up abandoned mines.

Good Samaritan Activities

The first project under the Agency's Good Samaritan Initiative is the abandoned mine in Utah's American Fork Canyon. We are working with Trout Unlimited (TU) and a private landowner who had not caused the pollution at the site. This project will result in the restoration of a watershed that has been impacted for well over a century, restoring the water quality and the habitat of a rare cutthroat trout species. Restoration of the American Fork is part of an

ambitious multi-year effort by Trout Unlimited to draw attention to the problem of abandoned mines in the western United States while also identifying solutions. EPA has learned from the experience of the Trout Unlimited project and is putting those lessons to good use. This restoration effort exemplifies how cooperative conservation -- placing a premium on collaboration and cooperation over confrontation and litigation -- can accelerate environmental protection.

The EPA is working actively with a broad array of stakeholders to discuss removing legal obstacles and proposing potential solutions to abandoned mine remediation. In January, senior officials from EPA attended a roundtable cosponsored by the Office of Water and the Western Governor's Association. Participants included representatives from the western States, the environmental community, the mining community, and others.

EPA recently participated in the release of a report by the Center of the American West at the University of Colorado, Boulder on the history of the nation's mining industry and the environmental legacy that remains. I understand that you will be hearing much more about this report during the next panel of this hearing. But I would like to say that the report clearly highlights the challenges -- at the federal, State, and local level -- in reducing the effects of inactive and abandoned mines. The Report also provided useful suggestions to manage this difficult problem.

Legislative Efforts

This issue is so important to us that EPA is working with the Administration on developing a legislative proposal, the "Clean Watershed Bill," that will encourage Good Samaritan projects and provide clarity on the qualifications necessary to become a Good Samaritan. The legislation will establish a streamlined permitting program where volunteers can apply to restore property affected by mine drainage from hardrock mines. It will specify who can become a Good Samaritan, and the steps the volunteer must take to participate in this process. It will also provide common sense cleanup standards, public accountability, and reliability. The legislation will encompass many of the ideas that members of Congress have previously advocated in earlier bills; incorporate the thoughts of state, tribal, and local entities; consider Federal land management authorities and responsibilities to achieve a comprehensive partnership among all involved parties in the cleanup of abandoned or inactive mines. We hope to be able to share more of the details of this work with you in the near future.

We applaud the bipartisan legislative efforts in both houses of Congress to address the issue, and we look forward to working with this Committee on legislation. In the interim, and until such time as Good Samaritan legislation is enacted, EPA will continue to encourage and facilitate clean up of abandon mines through use of its administrative authorities.

Conclusion

We hope the Good Samaritan initiative will be a springboard for future successes, such as those achieved through the Brownfields program. But unlike a Brownfield, Good Samaritans are not looking to purchase the property or receive monetary awards for their efforts -- they simply want to engage in voluntary stewardship activities that benefit the environment.

The bottom line is that this type of innovative partnership agreement -- coupled with targeted watershed grants and other assistance -- can help dramatically in revitalizing thousands of water bodies harmed by acid mine runoff.

A comprehensive solution to the problem associated with abandoned mine remediation is long overdue. EPA is actively working with Congress and our partners at the State and local levels to create a long-term solution to encourage and expedite Good Samaritan cleanups. EPA will continue to provide leadership through the Good Samaritan Initiative and to work with our Federal land management agencies, States and Congress to pass legislation that promotes and encourages environmental restoration of abandon mine sites across the country.

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TESTIMONY OF
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BEFORE THE
SUBCOMMITTEE ON WATER RESOURCES AND ENVIRONMENT
COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE
U.S. HOUSE OF REPRESENTATIVES

March 30, 2006

Mr. Chairman and Members of the Subcommittee,

Thank you for this invitation to speak to you on the subject of abandoned mines and acid mine drainage. It is an honor and privilege to come before you.

The mining booms of the nineteenth and early twentieth centuries left behind a mixed heritage: families supported by wages, wealth acquired by some, national prosperity and high standard of living, a folklore of color and adventure, and, regrettably, thousands of hardrock mines that discharge highly toxic water pollution. We now face the necessity of reckoning with this unfortunate environmental legacy of our mining past.

These abandoned hardrock mines and their discharge of pollutants (acid mine drainage) exact a high cost on the environment and society. They kill aquatic life in tens of thousands of rivers and streams, some potential fisheries; they deprive communities of the economic benefits brought by anglers and other recreational visitors. They taint water supplies, requiring municipalities to spend significant monies on water purification. Some mountain communities find their chances of economic development constrained by the toxic discharge of local mining sites.

The cleanup of these mines presents a formidable technical challenge. However, the greatest impediment to the remediation of abandoned mines is, ironically, the potential to incur liabilities and penalties prescribed by the Clean Water Act. Government agencies, the mining industry, and environmental groups agree that Good Samaritan remediating parties must have relief from Clean Water Act liability in order to make substantial progress in addressing this problem.

While there is broad consensus on the need for liability relief, other issues remain unresolved. I believe that an understanding of the history of mining in the West can help show us not only how we find ourselves in this predicament today, but also how to proceed toward agreement on those remaining points of discord.

The Historical Significance of Mining

No other industry changed the West as rapidly and as profoundly as did the gold and silver rushes of the nineteenth century. Mining, more than any other white American enterprise, accelerated the colonization of the West. It brought with it systems of law, governance,

commerce, transportation, communications, and finance. Only with these institutions of civil society in place could miners proceed in relative security with the harvest of the mineral wealth that lay in the western territories.

Mining, as a labor intensive industry, also populated the West. The California Gold Rush of 1849 inspired thousands of Easterners, Southerners, and Midwesterners to make the difficult passage across the American interior. The quest for precious metals then drew prospectors into the interior itself, with major rushes in 1859 to the areas that would become Colorado and Nevada. Gold and silver brought Americans to places they otherwise would have avoided or even fled. To those men intent on harvesting the mineral bounty of the American West, the territorial constraints imposed by treaties and Indian country boundaries carried little meaning. Thus mining had the effect of pushing American political sovereignty into many areas of the Northwest, the Rockies, the Great Basin, and the Southwest.

Scope of Environmental Degradation from Abandoned Mines

Although the old-timers knew not to drink water downstream from their stake, they had little notion of the environmental legacy that they were bequeathing to later generations of Americans. The extent of this degradation is daunting. The U.S. Bureau of Mines estimated that 12,000 miles of waterways in the Western United States, or about 40 percent, are contaminated by metals from acid mine drainage, mostly from abandoned mines, while 180,000 acres of lakes and reservoirs are tainted by abandoned mine runoff.¹ The Mineral Policy Center (now Earthworks), put the number of abandoned hardrock mines at about 500,000 a few years ago, and it estimated cleanup costs from 30 to 70 billion dollars. Such figures may well be inflated, and we must remember that all rivers contain some amount of minerals from natural sources. But these figures correctly convey the fact that a great deal of wilderness, much of it located in National Forests and other public lands, is partially or wholly spoiled for fishing, hunting, and hiking. That means great deal of lost revenue for communities whose economies depend on these outdoor pursuits. Anglers especially are affected by acid mine drainage and have become a strong voice in calling for the cleanup of abandoned mines. Their main organization, Trout Unlimited, now devotes significant resources to AMD cleanups.² Some municipalities must also spend hundreds of thousands of dollars to purify their water supply. The city of Golden, Colorado, was at one point spending \$250,000 annually to remove heavy metals and acid from Clear Creek.

How Can a Mine Be "Abandoned"?

Who is responsible today for the acid mine drainage coming from these historic mines? Technically, some entity or individual owns every square mile of U.S. land and the mines on

¹ Cited in Carlos D. Da Rosa and James S. Lyon, *Golden Dreams, Poisoned Streams* (Washington, D. C.: Mineral Policy Center, 1997), p. 4. See also Robert L. P. Kleinmann, "Acid Mine Drainage" *Engineering and Mining Journal* (July 1989), p. 161.

² See Trout Unlimited's recent publication by Russ Schnitzer and Rob Roberts, *Settled, Mined & Left Behind: The Legacy of Abandoned Hardrock Mines for the Rivers and Fish of the American West, and Solutions for Cleaning Them Up* (2004), also online at http://www.centerwest.org/acid_mine/reading-tu.pdf.

them, whether it is a federal agency, a former mine operator, or someone who inherited the claim from the operator and who may not even know about the mining that once took place on the land. It may be someone who bought the land from the former operator and now plans to reactivate the mine. In many cases, claims were made on federal land, and some mining was done, but the claim was never transferred into private ownership and therefore ownership of the land reverted to a federal agency.

Theoretically, these owners are responsible for the water discharged from their mines. But regulatory agencies find it impractical to take legal action against the vast majority of private owners. Most unwittingly inherited the problem, and could not begin to pay for remediation. They are, by virtue of having little or no financial means, "judgment-proof" should someone sue them for environmental violations. Old mines belonging to such private individuals are simply waiting for a third party, an environmental Good Samaritan, to clean them up.

Clean Water Act Impediments to Mine Remediation

The Clean Water Act creates both a mandate and an obstacle for cleaning up acid mine drainage. The Clean Water Act prohibits "the discharge of any pollutant by any person" without a permit, into "navigable waters from any point source." The law delegates to the EPA or the states the responsibility of identifying streams that are impaired in terms of their designated uses. For many alpine streams affected by acid mine drainage, that designation is "Class 1 Cold Water Aquatic"—this means that the stream should support aquatic life, including species that may be sensitive to trace amounts of metal contamination. If the concentrations of metals exceed the standards for sustaining aquatic life, then the stream is impaired, and some kind of remedial action is required by the Clean Water Act.

Remediating parties are required in normal circumstances to obtain a Clean Water Act discharge permit (a National Pollutant Discharge Elimination System permit or NPDES). The permit requires that the treatment will result in Clean Water Act water quality standards, which are very stringent, and that the remediator will remain responsible for the source of pollution in perpetuity. These two provisions have deterred many interested parties from cleaning up polluting mines. When a third party—a nonprofit organization, community group, government agency, or corporation—attempts to clean up acid mine drainage coming from an abandoned mine, that party legally assumes liability for the mine's discharge. A Good Samaritan remediator might wish to decrease the acid mine drainage at a particular site, but could not undertake a comprehensive remediation project that would satisfy Clean Water Act water quality standards. Current federal law allows for no such partial cleanup. A Good Samaritan has the choice of achieving the highest water quality standards or of not undertaking the project at all.

An additional deterrent is the financial penalty that such an operator might incur under Clean Water Act provisions. Although it is up to the discretion of individual judges, an operator of a mine is liable to incur penalties of up to \$32,500 for every day that the mine discharges pollution. Would-be environmental Good Samaritans abandon their good mission because they cannot possibly risk these fines, assume the long-term financial liability, or meet the water quality standards dictated by the Clean Water Act.

Some jurists argue that abandoned mines should not be covered by the Clean Water Act. John Whitaker, environmental advisor and Undersecretary of the Interior during President Richard M. Nixon's last administration, and a principle author of the Clean Water Act, here

looks back on the unintended consequence of CWA liability for would-be environmental Good Samaritans:

When I and other White House staffers responsible for environmental initiatives during the Nixon administration recommended to the President new water pollution control strategies for congressional consideration, our focus was primarily on sewage treatment and industrial effluent, not the acid mine drainage problems from abandoned mines. We should have had more foresight.

Before we decided on a regulatory enforcement strategy, our initial inclination was to propose to President Nixon an effluent fee system, i.e., a market-oriented alternative to regulation by enforcement that relied on financial, not regulatory, incentives to clean the nation's waters.

The effluent fee concept was appealingly simple. The more an enterprise polluted, the more it paid. This way, the free market could set the cost of cleaner water, not a regulatory system, which often turned out to be based on unscientific assumptions with politically motivated goals that were impossible to meet.

However, the effluent fee concept died because there were serious political disadvantages. Congress had only given consideration over the years to a "tough cop" regulatory approach. "Sue the bastards" had a nice ring to it.

Also, effluent fees are a form of taxation, and the House Ways and Means Committee and the Senate Finance Committee would have claimed jurisdiction. Under those conditions, it was highly unlikely that Nixon's proposals would have ever seen the light of day because members of these committees saw taxation only as a means for increasing or decreasing revenue, not as a means of curing social ills such as water pollution.

In retrospect, one wonders what might have been. Later, in 1972, an EPA paper, "Alternative Strategies in Water Quality Management," concluded that an "effluent fee is the most effective alternative for national water quality objectives. It promises to be the most effective and simultaneously requires the least cost."

Eventually, bowing to political realities, we decided to go down the traditional regulatory path, which indeed turned out to be the proverbial slippery slope.

Impatient that Congress had sat on Nixon's proposed water quality legislation for almost a year (Congress held a few water pollution hearings, then spent most of its time on air pollution, solid waste, and ocean pollution legislation), we decided to revive the permit authority in the old 1899 Refuse Act that required a federal permit to discharge effluents into navigable waters. Later Congress incorporated this permitting authority into the Water Pollution Control Act of 1971.

However, Congress required that the water pollution control standard be "zero discharge." At the time, the Nixon Administration witnesses testified before Congress that the zero discharge provision was an impossible goal to achieve, and also an unreasonable financial impediment to clean water because of the very high cost of removing the last few percentages of effluents in relation to the benefit of the result. The stated goal reflected a lack of understanding of the scientific and technical aspects of water pollution control.

For example, a zero discharge provision ignores the nature of the river, lake, or ocean into which the discharge is flowing, and this oversight can lead to absurd results:

water distilled to the zero discharge standard at great cost might be dumped into naturally saline or mineralized streams, altering them for the worse.

We did not envision at the time that the day would come when the zero discharge provision would prevent Good Samaritans from cleaning up acid mine drainage or when the onerous and costly federal permit requirements would snuff out any economic incentive to curb the acid mine drainage problem associated with abandoned mines.

So perhaps the time has come to take another look at the basic water quality laws and reconsider a market-based effluent fee approach.³

Such testimony underlines the need to adjust the Clean Water Act so that it might facilitate rather than inhibit environmental improvement.

Some legal experts argue potential Good Samaritans could plausibly defend themselves against a Clean Water Act liability suit and against the Comprehensive Environmental Response Compensation and Liability Act (CERCLA), whose liability provisions Good Samaritans also fear.⁴ This is a matter of legal opinion, however, and few Good Samaritans would care to test it in court.

What Is an Environmental Good Samaritan?

All parties agree that disinterested, altruistic parties—environmental Good Samaritans—should be able to undertake mine cleanups without incurring Clean Water Act liability. But who qualifies for such a designation? Such an entity—whether an individual, a group, a government agency, or a complex coalition of groups—would be moved first and foremost by the desire to clean up an environmental mess; that to do so, it would bring its resources to bear, not just once, but until the problem was resolved; and finally, that it would understand this act as a moral obligation of environmental stewardship.

A trickier issue, arises with the introduction of a commercial aspect into the question. In terms of healing the environment, the issues of self-interest and a profit motive are points of contention when trying to define who counts as a Good Samaritan. Some argue that an environmental Good Samaritan can only work on behalf of public welfare broadly defined. This means, in practical terms, that the redemptive actions must be governmental because government, unlike most commercial or philanthropic enterprises, endeavors to balance the needs and desires of society's many competing interests. Government agencies are also accountable to elected politicians and ultimately to the public. Others also worry that if environmental Good Samaritans are allowed to profit in some fashion from a clean up—as some mining companies now propose—the purpose of environmental cleanup will be lost in the pursuit of economic gain. On the other hand, some kind of profit incentive could dramatically accelerate the process of cleaning up abandoned mines. Private enterprise has an energy and drive that could have a very positive effect. Mining companies, after all, know how to work the sites. Government processes, on the other hand, do not enjoy a reputation for efficiency. Some argue that the government is good at conducting studies and writing reports, but the real technological know-how, the scientific brain power, and the right equipment are all found in the

³ Patricia Limerick, et. al. *Cleaning Up Abandoned Hardrock Mines in the West: Prospecting for a Better Future* (Boulder: Center of the American West, University of Colorado, 2005), p. 23.

⁴ Sean McAllister, "Unnecessarily Hesitant Good Samaritans: Conducting Voluntary Cleanup of Inactive and Abandoned Mines Without Incurring Liability," *Environmental Law Reporter* 33 (2003): 10245-10264.

mining industry. We favor a broad definition of who might qualify as a Good Samaritan even though some bad actors using this status may be tempted to conduct new mining activities without a proper permits. This seems to us a marginal risk given the potential for environmental improvement.

State Good Samaritan Initiatives

Rather than waiting for federal Good Samaritan legislation, the state of Pennsylvania passed its own in 1999—the Environmental Good Samaritan Act.⁵ This act presumably provides protection against liability for land owners and third parties (individuals, nonprofit organizations, corporations, and government agencies) that take on abandoned mine reclamation and water-pollution abatement projects. By this legislation, as long as you don't make the problem worse, you will be shielded from liability under the Clean Water Act. All work must be conducted with the guidance and approval of the Pennsylvania Department of Environmental Protection.

At the same time, then-Pennsylvania Governor Tom Ridge signed the Growing Greener legislation, which provided \$650 million from the state's general funds over five years to clean up critical environmental problems, including acid mine drainage from abandoned coal mines. State legislators recognized acid mine drainage as Pennsylvania's most pressing water quality problem, and they sought to provide both liability relief and the money to do the work of remediation.

Removing the obstacles of liability and insufficient funding has resulted in a proliferation of active watershed groups in Pennsylvania—the Pennsylvania Organization for Watersheds & Rivers lists about three hundred watershed alliances, associations, and friends—Friends of the Mingo Creek, of the Poquessing Watershed, of the Sinking Valley, of the Nescopeck Creek, of the Wissahickon Creek—just to name a few. The most notable is the community organization headed by T. Allan Comp, a historian with the Office of Surface Mining. Comp's AMD&ART in Vintondale, Pennsylvania, has won awards for its innovative efforts to transform an abandoned colliery into a public park and to raise public awareness of the need for cleaning up abandoned mines.

Pennsylvania has managed to relieve Clean Water Act liability, provide more than a half-billion dollars of funding for remediation projects, and encourage community participation in cleanups on a wide scale. Should Western states follow Pennsylvania's example by passing their own Good Samaritan legislation?

The Pennsylvania model is not perfect. Its Environmental Good Samaritan law cannot legally supersede the requirements and provisions of federal law. Pennsylvania Good Samaritan groups such as AMD&ART, Inc. presume that they are protected from Clean Water Act penalties and liability as they work under the auspices of their state's Good Samaritan law. However, they cannot know for certain if a state or federal environmental standards enforcement agency, particularly the EPA, will not step in and hold them to the stricter federal standards. In fact, EPA officials know that good work is being done in Pennsylvania; they want to see mines cleaned up and so are probably not going to interfere with the progress. The bigger risk to Pennsylvania Good Samaritans comes in the form of citizen groups, especially environmentalists, who oppose any laws which allow an exception to or variance from the

⁵ Environmental Good Samaritan Legislation, Act 1999-68,
http://www.centerwest.org/acid_mine/reading-pa1999-68.pdf

standards and provisions of the Clean Water Act. There might be broad agreement on a reasonable approach to cleaning up a site, but it would take only one dissatisfied holdout to scuttle a project.

Funding Sources for Mine Remediation

Despite the threat of liability, mine cleanups do happen, either through a consent decree that establishes alternative cleanup standards for a particular project, or by not directly treating the polluted water.

How are these projects funded? Depending on the severity of a mine's pollution, its threat to public health, its environmental impact, and its location on public or private land, there are a variety of public funding sources and strategies available for cleanups. The obvious places are the established federal programs, without which virtually all acid mine cleanups would be impossible. Here is a very brief description of some of those programs:

CERCLA. If the pollution is a "hazardous substance" and poses an immediate threat to human health, the Environmental Protection Agency may designate a mine as a Superfund site under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). Signed into law in 1980, Superfund law initially provided funding through a tax on the chemical industry. Congress, however, failed to reauthorize this tax in 1995, terminating this source of cleanup funding. Now projects done under CERCLA authority depend in part on general congressional appropriations to various federal agencies such as the EPA.⁶

Brownfields Revitalization Act. Acid mine remediators have been innovative in tapping other cleanup and redevelopment initiatives that were not originally intended for acid mine remediation. The Brownfields program, begun in 1995 under the administration of the EPA and as a part of CERCLA, seeks to assist states, communities, and other stakeholders in the reclamation and redevelopment of "brown fields"—those areas, usually located in industrialized cities, that were compromised by the presence of hazardous materials and other forms of industrial pollution. While initially conceived as a means of revitalizing economies in urban, formerly industrial, neighborhoods, the Brownfields program now also makes grants to acid mine remediation projects where restoration of the natural landscape is the primary concern. Brownfields grants emphasize the reclamation of disturbed land in contrast to those Clean Water Act Section 319 grants mentioned below, which are designed specifically for the remediation of water. Where both acreage and water need attention, Brownfields and Section 319 grants might be used in complementary fashion.

Brownfields, however, has limitations. Its funds are not currently applicable to superfund sites, and loosening this restriction would allow many mitigators access to this funding source.

Clean Water Act Section 319 Non-Point Source grants. These grants from the EPA are administered by the states for use by non-profit organizations engaged in the design and implementation of watershed restoration projects. "Non-point" means those polluting sites where it is difficult to identify a single point, like a drainage pipe, from which the pollution flows. Mines often discharge pollution from tunnel openings, but polluted water can also emanate from the site through more diffuse seepages.

⁶*Abandoned Mine Site Characterization and Cleanup Handbook*, August 2000, http://www.centerwest.org/acid_mine/reading-epa910b00001.pdf.

SMCRA. Some states like Montana utilize industry tax funds collected under the Surface Mining Control and Reclamation Act. Enacted in 1977, SMCRA was designed to regulate every aspect of coal mining operations and to establish standards for the restoration of areas disturbed by coal extraction. It has had a profound effect on areas where coal was or is now being mined. SMCRA has also been stretched to assist in the cleanup of hardrock mining in certain areas. If a state can show that it has completed the remediation of its coal mine sites, then it becomes eligible to receive SMCRA funds for hardrock abandoned-mine remediation (but not usually the acid drainage itself).

Bureau of Land Management. In the 1990s, BLM, in cooperation with various states, inventoried and assessed nearly 8,000 abandoned hardrock mines on its lands. The BLM now is working to treat those sites that cause the most environmental damage to watersheds or pose the greatest risks to public health. Like other government entities, the BLM works cooperatively with other agencies and private owners to secure funds and undertake cleanups in those watersheds most in need of remediation. Besides receiving an annual congressional appropriation of around \$10 million for this work, the BLM also procures funds from other AMD-related federal programs. Through these efforts, about a dozen BLM abandoned mines are cleaned up each year.

U.S. Forest Service. National Forest watersheds are the single largest provider of municipal water for 66 million people in 33 western states,⁷ but some 7,600 abandoned mines threaten the quality of their water.⁸ The Forest Service receives about \$20 million annually from congress and federal programs for the assessment and cleanup of abandoned mines, and usually manages to treat between ten and forty projects each year.⁹

These federal programs mesh with the many state programs¹⁰ in the effort to undertake voluntary cleanups of abandoned mines, and Western states establish their own programs and funding. Colorado's Inactive Mine Reclamation Program, established in 1980 spent more than \$18 million on abandoned mine remediation in 2002.¹¹

Who Should Pay for Mine Remediation?

Federal and state funding programs must be carefully designed in order to place the financial burden of remediation on the right parties. SMCRA, for example, depends on taxation of the coal mining industry, and this draws our attention to a contentious issue. The coal industry has

⁷ U.S. Forest Service's Abandoned Mine Land Program (August 2004)
http://www.fs.fed.us/geology/fs_aml_program.pdf

⁸ U.S. Department of Agriculture, Forest Service, *FY 2005 Budget Justification*, available at <http://www.fs.fed.us/publications/budget-2005/fy-2005-budget-justification-pdf.pdf>.

⁹ U.S. Department of Agriculture, Forest Service, *FY 2005 Budget Justification*, at 15-30, available at <http://www.fs.fed.us/publications/budget-2005/fy-2005-budget-justification-pdf.pdf>.

¹⁰ McElfish, J.M., Jr., Bernstein, T., Bass, S.P., and Sheldon, E., *Hard Rock Mining: State Approaches to Environmental Protection*. Washington, DC: Environmental Law Institute, 1996.

¹¹ U.S. Department of Interior, Colorado Inactive Mine Reclamation Program, *Annual Summary Evaluation Report of the Colorado-Utah Abandoned Mine Land Team* (Evaluation Year 2002), available at <http://www.osmire.gov/oversight/coloradoaml02.pdf>. [check URL]

paid more than \$7.2 billion in fees to the SMCRA abandoned mine lands fund to date.¹² Coal companies located in Wyoming, for example, pay into taxes that are then partially redistributed to other states. Why should a Wyoming coal company help pay for mine remediation in Colorado or West Virginia? Even more puzzling, should this company help pay to clean up a hardrock mine that closed down in the late 1800s? The placement of tax burdens on the mining industry through programs like SMCRA requires careful consideration and committed diplomacy.

Consumers, we believe, have both an opportunity and obligation to acknowledge the extent to which they have driven mining enterprises, and accept responsibility for the environmental consequences for their consumption. Consumers have not seen the true cost of the mineral and metal commodities because the price of their goods has not included the environmental costs. That cost has been passed on to the future, and now the future has arrived. Part of an honest reckoning with the legacy of mining must be a willingness on the part of consumers to pay for abandoned mine remediation.

Hardrock miners also fear that any movement to tax their industry would have the effect of pricing their commodities out of the international marketplace. Such taxation might have the unintended and unfortunate effect of increasing the importation of minerals and metals from countries with few or no environmental controls. In this case, the environmental problems associated with extractive industry would simply be exported to another country, as is already beginning to happen in the timber industry.

Western states should also be prepared to assume at least some of the financial and legislative responsibility themselves. In these times of tight budgets, creative sources of funding will have to be tapped. A state tourism tax might be considered because abandoned mine remediation restores aquatic habitat, and fishing is a major attraction for visitors in most Western states. In general, the financial responsibility of acid mine remediation must fall more broadly on those who have enjoyed mining's benefits, and that means average American consumers. How best to achieve that fairer distribution of financial responsibility is open to discussion, but it is time that we consumers take responsibility for our part in the environmental legacy of mining.

Congressional Action

No fewer than four Western members of Congress—Max Baucus, Mark Udall, Scott McInnis, Ben Nighthorse Campbell, and Ken Salazar—have introduced environmental Good Samaritan bills since 1999. The focus of all of the bills was relief from Clean Water Act liability for third parties taking on cleanup of abandoned mines. Some of the bills also proposed that royalties on hardrock mining be used to fund cleanups. But designing legislation with a double mission—providing for Clean Water Act liability exemption and setting up a funding mechanism—has thus far proven too difficult, and none of these bills succeeded. There is increasing sentiment that these two aspects of the problem should be tackled separately.

A partial solution to crafting a Good Samaritan bill is to separate the protection from liability from the funding issues. A bill designed to allow Good Samaritans to proceed with their work without incurring Clean Water Act liability could encounter much less opposition if it did not

¹² Office of Surface Mining, Abandoned Mine Land Program, *Completed Reclamation of Problems Created by Mining Other Than Coal Mining*, available at <http://www.osmre.gov.aml.accomp/znoncoal.htm>.

attempt to address the question of who will pay. Such a bill could allow individuals or organizations the ability to obtain a permit to undertake cleanups of hardrock mines according to adjusted environmental standards. Having gotten a Good Samaritan provision in place, Congress could then work on the right formula for funding such cleanups.

If Congress amends the Clean Water Act, it should be careful not to impair the general integrity of this environmental law. The Clean Water Act is generally very useful in protecting the environment from industrial polluters. This principal purpose should not be compromised in an revision of the Clean Water Act.

On the other, there is good reason to fight for a stand-alone Good Samaritan bill. Good Samaritans working under the shelter of this kind of legislation would still be executing a cleanup plan and meeting water quality standards, albeit lowered, approved by the EPA. Some improvement is better than no improvement. But if we use adjusted standards, we must ask ourselves exactly what the goals of cleanup are and what constitutes a success. The recalibration of standards to allow Good Samaritan actions would need to consider, for example, whether the intention of the cleanup would be to return fish to a stream. Is a partial cleanup good enough for the fish? Failing this goal, what would other cleanup benchmarks be? Would those cleanup goals be too expensive to achieve in some areas? Such questions require us to think about the precise purposes of a cleanup and where it is feasible to achieve them.

Remining

In the course of our research, we were struck by the depth of passion aroused by the notion that the cleanup of abandoned mines might be part of a commercial, for-profit enterprise. Although such a prospect is a matter of deep concern to some environmental litigators, it seems to us premature to dismiss it. Re-mining is a possibility to consider. The National Mining Association describes re-mining as the processing of old mine waste in order to recover its mineral content, which older mining techniques were not able to extract, and to remove it as a pollution source. In the best possible scenario, re-mining would benefit the company's bottom line, ameliorate the environmental problem, and save the cost of other forms of AMD remediation.

Industry watchdogs worry that that mining companies could abuse re-mining liability exemption to escape from liabilities incurred from their own operations. And the process may not be practical. Re-mining generally requires that a large, financially healthy mining operation is already working in the same area as the abandoned, polluting mine. Such a company would only be interested in re-mining an old site if the ore was of sufficient quality, and if it did not cost too much to transport the ore to the processing facility. In the end, many abandoned mines may not be good re-mining candidates. Re-mining opponents may not have much to worry about after all.

Conclusion

The environmental laws of the 1960s and 1970s created a new world for the operations of extractive industries, and we are all beneficiaries of that transformation. And yet those laws were not written under divine inspiration. They are not sacred, infallible texts that will impart perfect wisdom for all time. Legislation designed to protect the environment can inadvertently harm it.

I urge you to work toward the passage of a simple, restricted bill to allow Good Samaritans the ability to conduct mine cleanups without fear of Clean Water Act liability. We need to remain vigilant in ensuring that current mining operations would not conduct new mining activity under relaxed regulatory standards, but we feel that such a risk is acceptable next to the potential environmental benefits produced by such a law.

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Testimony Outline

- I. Historical Significance of Mining
- II. Scope of Environmental Degradation from Abandoned Mines
- III. How Can a Mine Be "Abandoned"
- IV. Clean Water Act Impediments to Mine Remediation
- V. What Is an Environmental Good Samaritan
- VI. State Good Samaritan Initiatives
- VII. Funding Sources for Mine Remediation
- VIII. Who Should Pay for Mine Remediation?
- IX. Congressional Action
- X. Remining
- XI. Conclusion



Testimony of

John Mudge
Director, Environmental Affairs
Newmont Mining Corporation
On behalf of the National Mining Association

Before the Subcommittee on Water Resources and
Environment

Committee on Transportation and Infrastructure

United States House of Representatives

March 30, 2006

INTRODUCTION

My name is John Mudge. I am the Director of Environmental Affairs for Newmont Mining Corporation. Newmont is a U.S. company headquartered in Denver. Newmont engages in gold and copper mining and mineral processing operations in the Western United States, and has extensive mining operations on five continents worldwide.

As an environmental specialist at Newmont for the past 24 years, I am intimately familiar with the potential dangers posed by hardrock mine wastes that are not properly managed, as well as the importance of reclaiming mine sites after their useful life to eliminate such dangers. Newmont and other mining companies spend enormous sums each year to ensure that their mining operations are in fact fully protective of the environment. Newmont has received many awards for its reclamation activities, including a recent award in 2005 from the BLM for 40 years of sustainability, reclamation and rehabilitation on the Carlin Trend in Nevada.

Unfortunately, despite the environmentally-sound practices engaged in by mining companies today, there remain historic abandoned mines in the West that were operated before modern environmental regulations were in place and that were not properly reclaimed by their owners.

I am here on behalf of the National Mining Association and its member companies to urge this Committee to develop Good Samaritan legislation that will create a framework and incentives for governmental entities, citizens groups, non-profit organizations, and mining companies like Newmont to voluntarily remediate the pollution problems caused by others at such abandoned hardrock mine lands ("AMLs").

Although it may seem counterintuitive, existing federal and state environmental laws are the major obstacles that stand in the way of voluntary cleanups. A mining company or other person not previously associated with a given AML that begins to remediate the site could be potentially liable under the Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA") for cleanup of the entire site to strict CERCLA standards, even though it did not create the contamination at issue. In addition, such a company could be required under the Clean Water Act to prevent discharges to surface waters from the AML in perpetuity, unless those discharges meet strict effluent limitations and do not result in exceedences of stringent water quality standards -- something that may not be possible and, in any event, may be so expensive that no rational company would undertake the voluntary cleanup.

The Western Governors' Association, the National Academy of Sciences, and the Center of the American West (associated with the University of Colorado) have all recognized the legal impediments to voluntary clean-ups of AMLs deriving from federal and State environmental laws, and have urged that these impediments be removed.¹ Good Samaritan legislation that does so would, we believe, incentivize mining companies and others to spend more monies advancing the public good by cleaning up AMLs.

To be effective, such Good Samaritan legislation must include certain key concepts:

1. Mining companies that did not create the environmental problems caused by the AML in question should be allowed to qualify as "Good Samaritans." Mining companies have the resources, know-how, and technology to efficiently and appropriately assess the problems

present at an AML and to remediate those problems, often in conjunction with undertaking reclamation measures at nearby active mines which the company operates.

2. Individual Good Samaritan projects should be subject to review and authorization by EPA (and/or the States), after adequate opportunity for public notice and comment. Such authorization, which can be granted in the form of a Good Samaritan permit, should specify the scope and details of the Good Samaritan project that will be undertaken. Governmental authorization of such projects will ensure that a mining company or other person cannot misuse the Good Samaritan permit in order to engage in for-profit mining and other activities that are not necessary to remediate the site.
3. Good Samaritan projects should be allowed so long as they will result in a significant benefit to the environment, even if they will not result in the clean-up of all pollution at an AML or the attainment of all otherwise applicable environmental standards, such as stringent water quality standards. The perfect should not be the enemy of the good, particularly where persons will be voluntarily remediating problems for which they have no legal or factual responsibility.
4. EPA and the States must be given discretion to waive or relax the environmental requirements, standards and liabilities arising under State and federal environmental laws (particularly liability under CERCLA and the Clean Water Act) that could otherwise be applicable and that deter Good Samaritans from undertaking remedial actions.

¹ See Western Governors' Association & National Mining Association, Cleaning Up Abandoned Mines: A Western Partnership at 8, available at www.westgov.org/wga/publicat/miningre.pdf; National Research Counsel, Hardrock Mining on Federal Lands (1999) at 72, reproduced at http://www.nap.edu/html/hardrock_fed_land/index.html; Center of the American West, Cleaning Up Abandoned Hardrock Mines in the West (2005) at 20-24, available at www.centerwest.org/cawabanonedmines.pdf.

5. The types of remedial activities that can be authorized as Good Samaritan activities must include the processing and reuse of ores, minerals, wastes, and materials existing at an AML site -- even if this may result in the mining company recovering metals from such wastes and making some profit on its Good Samaritan operations. Such processing and reuse of historic mining materials may often be the most efficient and least costly means of cleaning up an AML site, with the wastes from any reprocessing or reuse activities being disposed of in accord with current environmental standards. The fact that a mining company could potentially make a profit on such activities would provide an added incentive for companies to clean up AMLs, although it should be kept in mind that, given the costs involved and the volatility of commodity prices, it is just as likely that a company would lose money as make a profit.

BACKGROUND

By way of background, mining activities have taken place in the western States (including on public lands) for the past century and a half. Most of this mining occurred before the advent of modern environmental regulation at the State or federal level. As a result, many historic mining operations were abandoned without being adequately reclaimed to ensure against potential future environmental damage.

Although there are thousands of AMLs located in the western States, no one really knows how many pose significant dangers to our nation's waterways, soils, groundwater or air. The Western Governors' Association has estimated that more than 80% of AMLs do not pose any

environmental or safety problems.² The Center of the American West recently concluded that “only a small fraction” of the abandoned mines are causing significant problems for water quality.³ Nonetheless, the federal land management agencies and the States are generally agreed that at least some percentage of these AMLs are causing pollution of rivers and streams, and potential contamination of air and groundwater resources.

At the vast majority of AMLs, there are no financially viable owners, operators, or other responsible persons whom the federal government or the States can pursue in order to fund clean-up of these sites. While the federal land management agencies can use monies within their budgets to investigate or remediate AMLs located on the public lands, the fact is that those budgets are limited. So are grant monies that can be provided under environmental programs aimed at investigating or remediating pollution, such as Clean Water Act § 319 grants or grants under the Brownfields Revitalization Act. Effective Good Samaritan legislation can, we believe, provide incentives for private parties, NGOs, citizens groups, and governmental entities to partially fill this gap and help remediate some AMLs posing environmental dangers.

ELEMENTS OF EFFECTIVE GOOD SAMARITAN LEGISLATION

Efforts to enact Good Samaritan legislation have been ongoing in the Congress for the past decade. It has become clear to NMA and its members that, in order to be effective, Good Samaritan legislation must include a number of elements.

1. Mining companies must be allowed to qualify as Good Samaritans. The NMA has no quarrel with the concept that to be a Good Samaritan, an entity must not have caused the

² Western Governors' Association & National Mining Association, Cleaning Up Abandoned Mines: A Western Partnership at 5, available at www.westgov.org/wga/publicat/miningre.pdf.

³ Center of the American West, Cleaning Up Abandoned Hardrock Mines in the West (2005) at 31.

environmental pollution at issue. That does not mean, however, that mining companies should automatically be excluded from the universe of persons who can qualify as Good Samaritans. The majority of AMLs were created decades ago, before most existing mining companies were even in operation. There is simply no reason that an existing company (such as Newmont) should be precluded from being a Good Samaritan with respect to an AML for which it was not previously affiliated, simply because Newmont is a mining company.

To the contrary, there are good reasons why mining companies should be allowed to qualify as Good Samaritans. Mining companies have the resources, know-how, and technology to properly assess environmental dangers posed by an AML, and to efficiently remediate such sites. Indeed, to the extent that AMLs are located near active mining operations, a mining company would be in the best position to efficiently use equipment and personnel from its current operations, including its current reclamation operations, to remediate or reclaim a nearby AML for which it never had been responsible.

In fact, the mining industry has been front and center in trying to deal responsibly with AMLs. The National Mining Association, in cooperation with the Western Governors' Association, initiated the Abandoned Mine Land Initiative ("AMLI"). The AMLI was the first cooperative effort between industry and government to address AML issues, and focuses on disseminating data on the scope of the AML problem, technologies that can be used to address AML sites, and legal impediments to voluntary cleanup of AMLs. NMA, along with the Office of Surface Mining ("OSM") and the Interstate Mining Compact Commission representing the States also co-founded the Acid Drainage Technology Initiative ("ADTI"). The purpose of the ADTI is to develop and disseminate information about cost-effective and practical methods and technologies to manage drainage from active and abandoned mining and processing operations.

Industry has also already spent tens of millions of dollars to clean up numerous AMLs throughout the West. Some of these efforts are documented in a study published in 1998 by the National Mining Association entitled "Reclaiming Inactive and Abandoned Mine Lands - What Really is Happening"⁴. The NMA study presents compelling evidence that given the right opportunity, the mining industry can play a significant role in improving the environment at abandoned and inactive mines.

Unfortunately, some Good Samaritan bills introduced over the past several years have excluded mining companies from participation as Good Samaritans. There seems to be a view among some that, merely by having engaged in mining at other sites, the mining company in question is somehow "morally culpable" for the pollution caused at the AML by someone else. That simply makes no sense.

2. Federal and/or State Environmental Agencies Must Authorize Good Samaritan Projects. Good Samaritan projects should be approved by EPA and/or State environmental agencies, after prior notice to and comment from the public. Such approval should be given only if EPA or the State concludes that the project will result in significant environmental benefits. EPA or the State should also be allowed to impose conditions (such as monitoring requirements and financial assurance requirements) on the Good Samaritan as a condition of its going forward with its project. Approval of the project could be embodied in a Good Samaritan permit.

3. EPA and/or the States must be given discretion, on a case by case basis, to relax the regulatory and/or liability provisions of federal and State environmental law that might otherwise apply to the Good Samaritan. The main obstacle to mining companies, and others,

⁴ Reclaiming Inactive and Abandoned Mine Lands - What Really is Happening, Strubsacker, D.W., and Todd, J. W., prepared for the National Mining Association, 1998.

conducting voluntary clean-ups at AMLs are the potential liabilities and requirements deriving from federal and state environmental laws. A Good Samaritan that begins to clean up, or even investigate, an AML runs the risk of being an “operator” under CERCLA, liable for cleaning of all pollution at the site to strict Superfund standards. A Good Samaritan also runs the risk of having to comply in perpetuity with all Clean Water Act requirements for any discharges from the site, including stringent effluent limitations and water quality standards. These are liabilities and regulatory responsibilities that mining companies are unlikely to voluntarily accept, particularly with respect to AMLs that are posing significant environmental problems. Newmont has, for instance, in the past considered taking actions to voluntarily address pollution at certain inactive sites located on public land in a number of Western states, but ultimately declined to do so because of the potential liability concerns under CERCLA and the Clean Water Act.

To provide an incentive for mining companies to undertake Good Samaritan efforts, the legislation must allow the permit issuer, on a case-by-case basis, to waive or relax the liability provisions and regulatory standards that might otherwise apply to the Good Samaritan project, so long as: (1) the project would result in significant environmental benefits; and (2) the project would not go forward absent the waiver of such provisions and standards. As discussed previously, the Western Governors’ Association, the National Academy of Sciences, and the Center of American West have all urged that certain environmental standards and liabilities otherwise applicable to a Good Samaritan be waived or relaxed, in order to encourage Good Samaritan clean-ups.

4. Good Samaritan Legislation must not Unduly Narrow the Types of Activities that Constitute Legitimate Remediation. Abandoned hardrock mines pose a variety of environmental and safety problems throughout the West. They also call for a variety of clean-up measures. At

some sites, the physical removal of wastes and their disposal off-site may be the appropriate solution. At other sites, it may be a matter of diverting stormwater or mine drainage away from wastes and materials that are highly mineralized. And at yet still other sites, the best, most efficient, and least costly way to partially or wholly remediate the environment may be to collect the various wastes and materials located at the site, to then process those wastes and materials to remove any valuable minerals contained in them, and then to dispose of the wastes from the reprocessing operation in an environmentally-sound manner.

AMLs are located in highly mineralized areas -- that is why mining occurred at those sites in the first place. Often, materials, wastes and ore stockpiles abandoned by historic mining operations have quantities of a desired metal (such as gold, silver, zinc, or copper) that can be recovered with modern mining technology. Allowing the mining company -- particularly a company with operations nearby to an AML -- to process such materials and wastes as part of the Good Samaritan project would provide a financial incentive for mining companies to remediate such sites.

We recognize that some citizens groups are opposed to allowing mining companies to ever make a profit through Good Samaritan activities. Some groups have even argued that a mining company might seek to misuse Good Samaritan legislation as a way to engage in new mining, beneficiation and mineral processing operations without complying with the environmental laws that apply to such operations.

Such concerns are misplaced. The hardrock mining industry has no plans to utilize Good Samaritan legislation to undermine application of all environmental laws and regulations to legitimate mining projects. Nor could they. Under our proposal, a Good Samaritan could not

proceed without a permit from EPA or a State. Prior to issuing a permit, EPA and the State will certainly be aware -- and if they are not, the public would make them aware -- if a given project is in fact a stand-alone economically viable project that the mining company would undertake even absent Good Samaritan protections. The permit-issuer will also know whether the mining company's proposed project is an operation that will be remediating existing pollution, as opposed to merely a for-profit operation that is not cleaning up any existing environmental dangers.

We also disagree with the notion that a mining company should never be in a position to make a potential profit from clean-up activities. Unlike governmental entities and some NGOs who might undertake Good Samaritan activities, a mining company will be spending its own funds (not grants obtained from EPA or States) to undertake remediation activities. If it turns out that the price of a metal recovered through remediation activities is such that the mining company has made a profit, this does not detract from the fact that, without spending public funds, the mining company has in fact remediated an environmental danger. Moreover, the price of any given metal could as well go down as go up, leaving the mining company with no profit.

CONCLUSION

Legislation that embodies the concepts discussed above will provide incentives to mining companies and other entities to go forward and voluntarily remediate AMLs, while fully protecting the environment and the interests of the public. We would commend to the Subcommittee's attention Senate Bill S. 1848, introduced by Senators Wayne Allard (R-CO) and Ken Salazar (D-CO). We believe that the Salazar/Allard legislation contains the elements necessary to remove the existing legal impediments that deter mining companies and others from

undertaking investigations and remediations of AMLs. We also believe that it fully protects the public interest by requiring EPA and the States to sign off on any Good Samaritan permit, and by only allowing such permits in situations where the environment will be significantly benefited.

I would be happy to answer any questions that members of this Committee may have.



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Statement of:

Joseph G. Pizarchik
Director, Bureau of Mining and Reclamation
Pennsylvania Department of Environmental Protection

On Behalf of

The Interstate Mining Compact Commission

Concerning Barriers to the Cleanup of Abandoned Mine Sites

Before the

SUBCOMMITTEE ON WATER RESOURCES and Environment
Of the
HOUSE TRANSPORTATION AND INFRASTRUCTURE COMMITTEE

March 30, 2006

Statement of Joseph Pizarchik, Director, Bureau of Mining and Reclamation,
Pennsylvania Department of Environmental Protection

Good morning, Mr. Chairman. My name is Joseph Pizarchik and I am Director of the Bureau of Mining and Reclamation within the Pennsylvania Department of Environmental Protection. I am appearing here today on behalf of the Interstate Mining Compact Commission (IMCC). The IMCC is an organization of 22 states located throughout the country that together produce some 80% of the nation's coal, as well as important noncoal materials. Each IMCC member state has active mining operations as well as numerous abandoned mine lands within its borders and is responsible for regulating those operations and addressing mining-related environmental issues, including the reclamation of abandoned mines. I am pleased to appear before this Subcommittee to discuss barriers to the cleanup of abandoned mine sites. In particular, I will address the views of the Commonwealth of Pennsylvania regarding our experience with the reclamation of abandoned mine lands under Title IV and Title V of the Surface Mining Control and Reclamation Act of 1977 (SMCRA) and Pennsylvania's Environmental Good Samaritan Act.

I. BACKGROUND

Mr. Chairman, during the past quarter of a century significant and remarkable work has been accomplished pursuant to the abandoned mine lands (AML) program under SMCRA. The Office of Surface Mining Reclamation and Enforcement (OSM) have documented much of this work by the states and in various publications, including the twentieth anniversary report of OSM and a corresponding report by the states. OSM's Abandoned Mine Land Inventory System (AMLIS) provides a fairly accurate accounting of the work undertaken by most of the states over the life of the AML program and also provides an indication of what is left to be done.

Over the past 25 years, tens of thousands of acres of mined land has been reclaimed, thousands of mine openings have been closed, and safeguards for people, property and the environment have been put in place. Based on information maintained by OSM in AMLIS, as of June 30, 2005, \$2.6 billion worth of high priority coal-related public health and safety problems has been funded and reclaimed. Another \$354 million worth of environmental problems have been funded or completed and \$398 million worth of noncoal AML problems have been funded and reclaimed. In addition to the aforementioned federally funded projects, Pennsylvania has taken other steps to address the abandoned mine land problem within the Commonwealth.

There are numerous success stories from around the country where the states' AML programs have saved lives and significantly improved the environment. Suffice it to say that the AML Trust Fund, and the work of the states pursuant to the distribution of monies from the Fund, have played an important role in achieving the goals and objectives set forth by Congress when SMCRA was enacted – including protecting public health and safety, enhancing the environment, providing employment, and adding to the economies of communities impacted by past coal mining.

As we work to address the remaining inventory of abandoned coal mine sites, the states are particularly concerned about the escalating cost of addressing these problems as they continue to go unattended due to insufficient appropriations from the AML Trust Fund for state programs. Unaddressed sites tend to get worse over time, thus increasing reclamation costs. Inflation exacerbates these costs. The longer the reclamation is postponed, the less reclamation will be accomplished. In addition, the states are finding new high priority problems each year, especially as we see many of our urban areas grow closer to what were formerly rural abandoned mine sites. New sites also continually manifest themselves due to time and weather. For instance, new mine subsidence events and landslides will develop and threaten homes, highways and the health and safety of coalfield residents. This underscores the need for constant vigilance to protect our citizens. In addition, as states certify that their abandoned coal mine problems have been corrected under SMCRA, they are authorized to address the myriad health and safety problems that attend abandoned noncoal mines. In the end, the real cost of addressing high priority coal AML problems likely exceeds \$6 billion. The cost of cleaning up all coal related AML problems, including acid mine drainage, could be 5 to 10 times this amount and far exceeds available monies. Estimates for cleaning up abandoned noncoal sites are in the billions of dollars.

In my home state of Pennsylvania, Mr. Chairman, over 200 years of mining in Pennsylvania left a legacy of over 200,000 acres of abandoned unreclaimed mine lands. (Pennsylvania's Abandoned Mine Reclamation Plan, 1983.) These abandoned sites include open pits (Attachment 1), some of which are water filled pits (Attachment 2), spoil piles (Attachment 3), waste coal piles, mine openings and subsided surface areas.

Many of the abandoned sites discharge polluted water (Attachment 4). The mine drainage discharges range from alkaline water containing iron to heavily polluted acid discharges containing iron, aluminum, manganese and sulfates. The volume of pollution discharged varies. Some discharges are small seeps (Attachment 5) while others are large underground mine tunnels. One such tunnel discharges 40,000 gallons per minute. (Attachment 6, Jeddo Mine Drainage Tunnel.) According to an EPA Region III list from 1995 there were 4,485.55 miles of streams affected by mine drainage in Pennsylvania, Maryland, Virginia and West Virginia. (Attachment 7.) Three thousand one hundred and fifty eight miles were in Pennsylvania. These discharges have a significant impact on Pennsylvania's streams and rivers. (Attachment 8.)

Pennsylvania began addressing abandoned mine land problems in the 1940's. A more comprehensive and systematic approach to address these problems began in 1968 with the enactment of the Land and Water Conservation and Reclamation Act. After years of government effort and changes in state and federal law that imposed liability on a mine operator or anyone who mined or affected an abandoned discharge, it became clear that without help from other parties, government efforts would take many decades and billions of dollars to clean up all of the problems. Additional options were needed.

Upon examining the issue, Pennsylvania found that operators were obtaining permits for previously abandoned sites, and, using modern equipment, they were mining the coal that previously had not been economically or technologically feasible to remove. These abandoned mine lands were being remined and reclaimed in accordance with modern standards and laws. However, such remining and reclamation was not occurring on sites that contained mine drainage discharges.

Citizen, watershed and environmental groups were also working to address some of the problems in their geographical areas. When Pennsylvania officials tried to leverage the state's limited resources to accomplish more reclamation by working with these groups, we met significant resistance regarding sites that had existing pollutional mine drainage.

Mine operators and citizens alike would not tackle sites that had pollutional mine drainage discharges because state and federal law imposed strict liability on them to permanently treat the discharge if they reaffected the site. Many citizen groups would not attempt to treat abandoned discharges because of the potential liability. They could incur this liability even though they had not created the discharge and even if their remining or reclamation improved the quality of the discharge.

With the advances made in science, technology and our understanding of mine drainage, we in the Pennsylvania mining program knew many abandoned discharges could be eliminated or improved at little or no cost to the Commonwealth if we could address the potential for personal liability.

In Pennsylvania we took two different approaches to limit the potential liability, to the extent we could. First, for remining and reclamation of abandoned mine sites with preexisting discharges we worked to change the mining laws to limit a mine operator's potential liability. Incentives to encourage remining and reclamation were also enacted. Second, Pennsylvania enacted a new law to provide protections and immunities to those people who were not legally liable but who voluntarily undertook the reclamation of abandoned mine lands or abatement of mine drainage. This new law is called the Environmental Good Samaritan Act.

II. REMINING

Under the changes made to the coal mining laws for remining, an operator gathers data on the quality and quantity of the preexisting pollutional discharge to establish a baseline of the pollutants being discharged. The operator must demonstrate in its mining permit application, and the Pennsylvania Department of Environmental Protection must find, that the remining and reclamation of the site is likely to improve or eliminate the preexisting discharge in order for the permit to be issued. These permitting decisions are made using the Best Professional Judgment Analysis in accordance with the Clean Water Act. If the remining and reclamation is successful, then the mine operator is not held responsible to treat that portion of the preexisting discharge that remains. If the discharge is made worse, then the operator must treat the discharge to the point of the previously established baseline of pollutants.

Pennsylvania's remining program has been very successful. In a 2000/2001 study of 112 abandoned surface mines containing 233 preexisting discharges that were remined and reclaimed, 48 discharges were eliminated, 61 discharges were improved, 122 showed no significant improvement and 2 were degraded. In terms of pollutant load reductions, the net acid load was reduced by 15,916 pounds per day or 2,900 tons per year. The net iron load was reduced by 518 pounds per day or 95 tons per year. The net manganese load was reduced by 31 pounds per day or 5.6 tons per year. Aluminum was reduced by 303 pounds per day or 55 tons per year. The sulfates being discharged to the streams were reduced by 13,175 pounds per day or 2,400 tons per year. Approximately 140 miles of streams were improved. The pollutant load reductions were due to reductions in the flow and concentrations. If these materials were to have been removed through treatment, it is estimated it would have cost at least \$3,000,000 per year, every year. (This number does not include the costs of constructing the treatment systems.) These cost savings do not include what it would have cost Pennsylvania to reclaim these 112 sites. These environmental improvements occurred at no cost to the government or taxpayers because the operator's potential liability was limited and the operators were able to recover the coal that remained on the site. In addition, the operators paid a reclamation fee of 35 cents per ton of coal mined, reclaimed the land in accordance with modern standards and made a profit.

The benefits of remining are not limited to water quality improvements. Significant amounts of Pennsylvania's abandoned lands have been reclaimed at a significant savings to the government. For example, from 1995 through 2005, 465 projects reclaimed 20,100 acres and eliminated 139.68 miles of highwall. Abandoned waste coal piles were eliminated (Attachments 9 and 10 – before and after), abandoned pits were filled (Attachment 11), and lands were restored to a variety of productive uses, including wildlife habitat (Attachment 12). The estimated value of this reclamation is \$1,135,695,950 - money the state and federal government did not have to spend to reclaim these abandoned mine lands.

III. ENVIRONMENTAL GOOD SAMARITAN ACT

A second approach undertaken to encourage reclamation of abandoned mine lands and treatment or abatement of abandoned discharges occurred in 1999 when Pennsylvania's General Assembly enacted the Environmental Good Samaritan Act. The purpose of the Good Samaritan Act was to encourage volunteers to improve land and water adversely affected by mining or oil and gas extraction by limiting the potential liability. Prior to the Good Samaritan Act, anyone who voluntarily reclaimed abandoned lands or treated water pollution for which they were not liable could be held responsible for treating the residual pollution.

Projects must meet certain criteria to be covered by the Good Samaritan Act. The project must be reviewed and approved by Pennsylvania's Department of Environmental Protection. The proposed project must restore mineral extraction lands that have been abandoned or not completely reclaimed, or it must be a water pollution abatement project

that will treat or stop water pollution coming from abandoned mine lands or abandoned oil or gas wells.

The law contains protections for landowners and for the people who do the work.

Pennsylvania's Environmental Good Samaritan Act provides that a landowner who provides access to the land without charge or compensation to allow a reclamation or water pollution abatement project is eligible for protection. The Good Samaritan Act also provides that a person, corporation, nonprofit organization or government entity that participates in a Good Samaritan project is eligible for protection if they:

- Provide equipment, materials or services for the project at cost or less than cost.
- Are not legally liable for the land or water pollution associated with past mineral extraction.
- Were not ordered by the state or federal government to do the work.
- Are not performing the work under a contract for profit, such as a competitively bid reclamation contract.
- Are not the surety that issued the bond for the site.

Landowners who provide free access to the project area are not responsible for:

- Injury or damage to a person who is restoring the land or treating the water while the person is on the project area.
- Injury or damage to someone else that is covered by the people restoring the land or treating the water.
- Any pollution caused by the project.
- The operation and maintenance of any water pollution treatment equipment constructed on the land, unless the landowner damages or destroys the equipment or refuses to allow the equipment to be operated or repaired.

Landowners are not protected from liability if they:

- Cause injury or damage through the landowner's acts that are reckless, or that constitute gross negligence or willful misconduct.
- Charge a fee or receive compensation for access to the land.
- Violate the law.
- Fail to warn those working on the project of any hidden dangerous conditions of which they are aware within the project area.

Landowners are also not protected if adjacent or downstream landowners are damaged by the project and written or public notice of the project was not provided.

People who participate in a Good Samaritan project are not responsible for:

- Injury or damage that occurs during the work on the project.
- Pollution coming from the water treatment facilities.
- Operation and maintenance of the water treatment facilities.

Good Samaritan project participants are not protected if they:

- Cause increased pollution by activities that are unrelated to work on an approved project.

- Cause injury or damage through acts that are reckless, constitute gross negligence or willful misconduct.
- Violate the law.

Participants are also not protected if adjacent or downstream landowners are damaged by the project and written or public notice of that project was not provided.

In addition to being crafted to address potential legal liabilities that deter Good Samaritans from acting, Pennsylvania's Environmental Good Samaritan Act was also crafted to address potential financial hurdles that could impede a Good Samaritan project. A landowner, contractor or materialman who desires to profit from the efforts of the volunteers can do so. People who profit from Good Samaritans are not eligible for the immunities and protections available to the Environmental Good Samaritans. This approach was taken to encourage more people to provide their goods and services as economically as possible to allow Good Samaritans to accomplish more with their resources.

Pennsylvanians have undertaken 34 Good Samaritan projects. Participants include local governments, individuals, watershed associations, corporations, municipal authorities and conservancies. The status of the projects range from "very successful at removing metals from the water" to "not yet started." Some projects are simple low maintenance treatment systems. Other projects are large complex projects. A project in Vintondale, Pennsylvania, transformed an abandoned mine into a park that treats acid mine drainage, celebrates the coal mining heritage, provides recreation facilities for Vintondale's residents and serves to heighten public awareness and educate people on treating mine drainage.

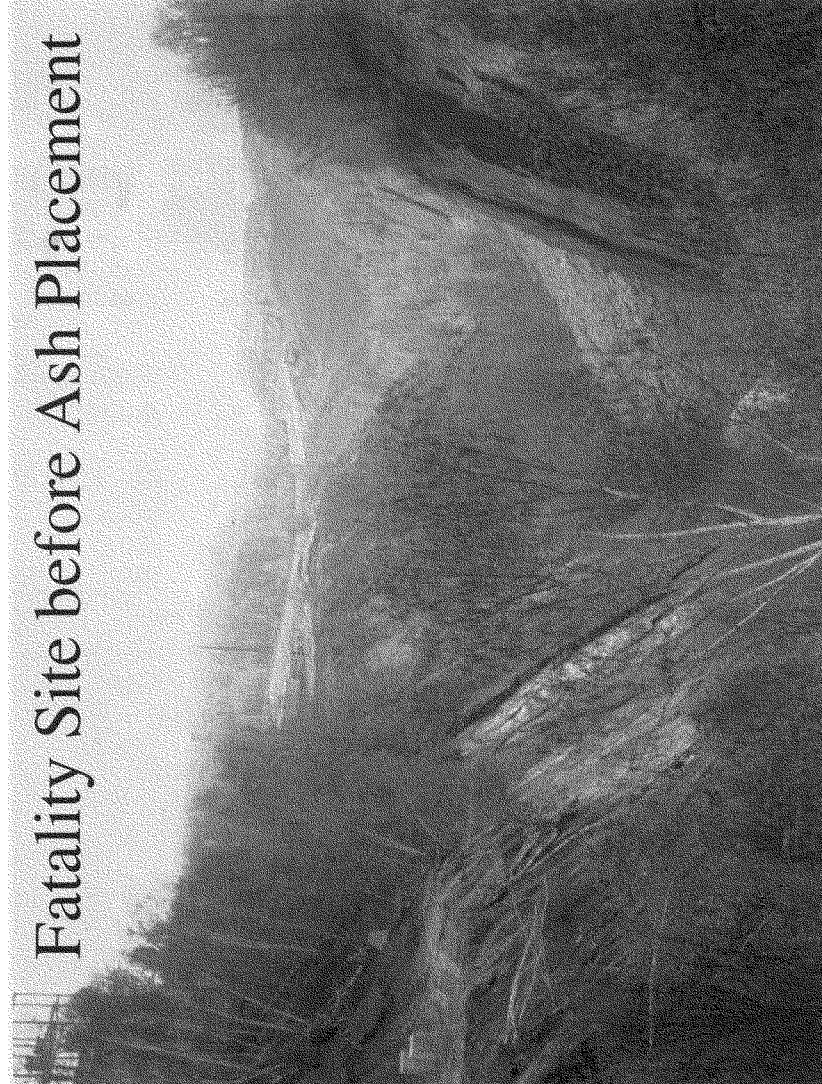
IV. CONCLUSION

While Pennsylvania's Good Samaritan Act has been successful in helping to engage local residents in restoring and assisting in the restoration of their environment, there are concerns. First, the Federal Clean Water Act citizen suit provision still poses a potential liability to the Good Samaritans. Recent developments portend actions by some who hold a strict, literal view of the National Pollutant Discharge Elimination System (NPDES) permitting requirements and of the Total Maximum Daily Load requirements. Without a Federal Good Samaritan Act or an amendment to the CWA providing that Good Samaritan projects and abandoned mining discharges are not point sources and are not subject to NPDES permitting requirements, the potential good work of volunteers in Pennsylvania and of others throughout the country are at risk. People who undertake projects that benefit the environment and America could be held personally liable for making things better because they did not make them perfect.

Mr. Chairman, our experiences in Pennsylvania with Good Samaritan cleanups and remining cleanups is instructive for others who are struggling to find effective mechanisms for addressing abandoned mine sites, be they coal or noncoal. Through the Interstate Mining Compact Commission, we have worked with other

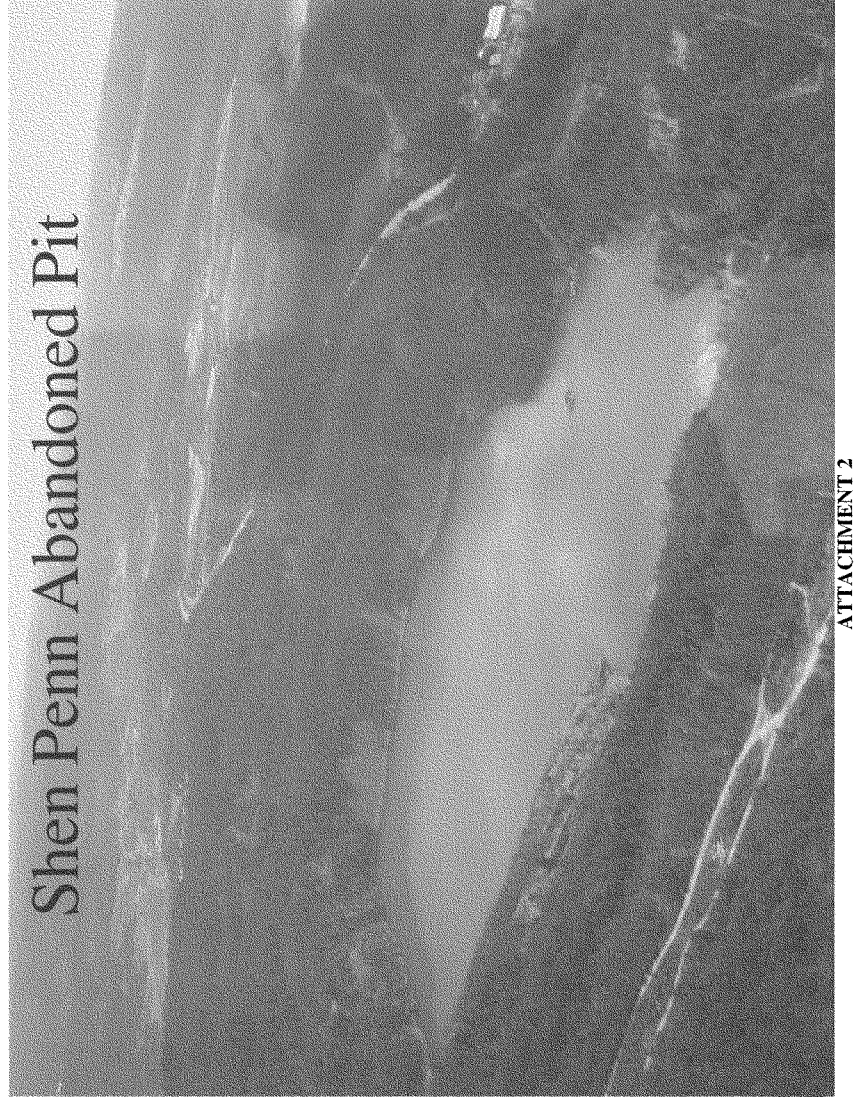
organizations to address this critical matter. We look forward to future opportunities to work together. We also welcome the opportunity to work with this Subcommittee, Mr. Chairman, to address the legal and legislative barriers that stand in the way of meaningful reclamation of abandoned mines throughout the country.

Thank you for the opportunity of appearing before you today. I would be happy to answer questions you may have or to provide follow up answers at a later time.



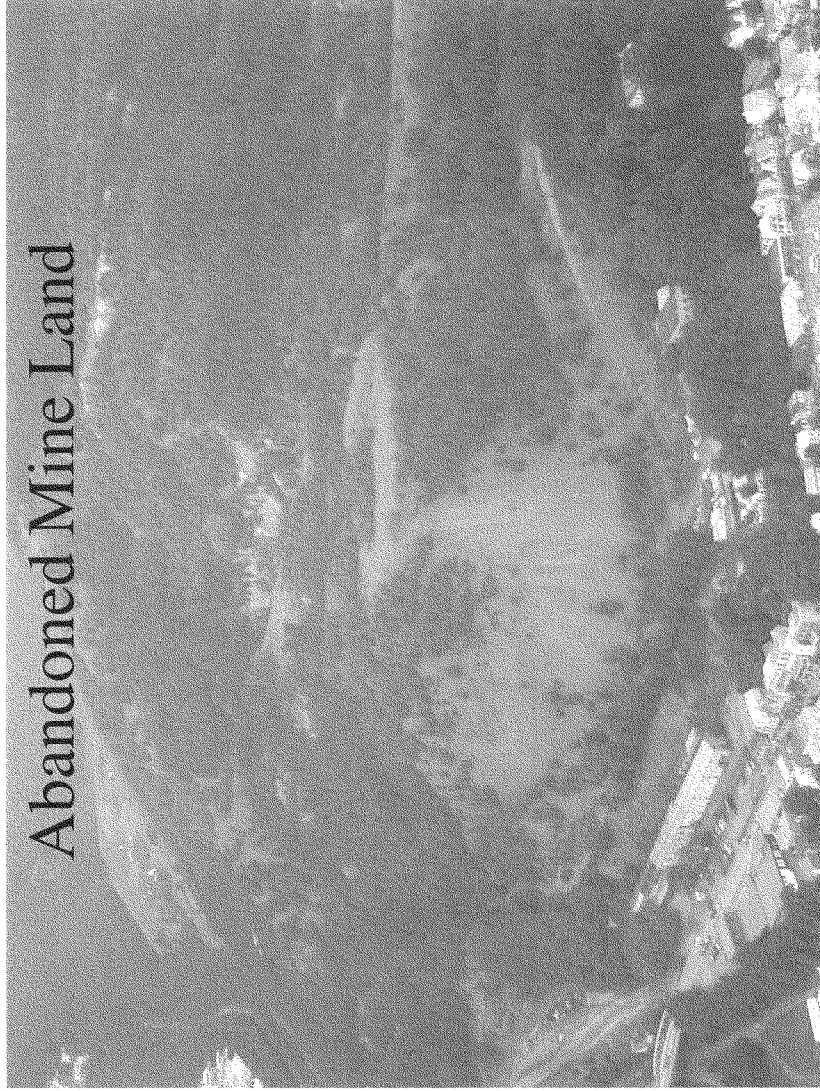
Fatality Site before Ash Placement

ATTACHMENT I



Shen Penn Abandoned Pit

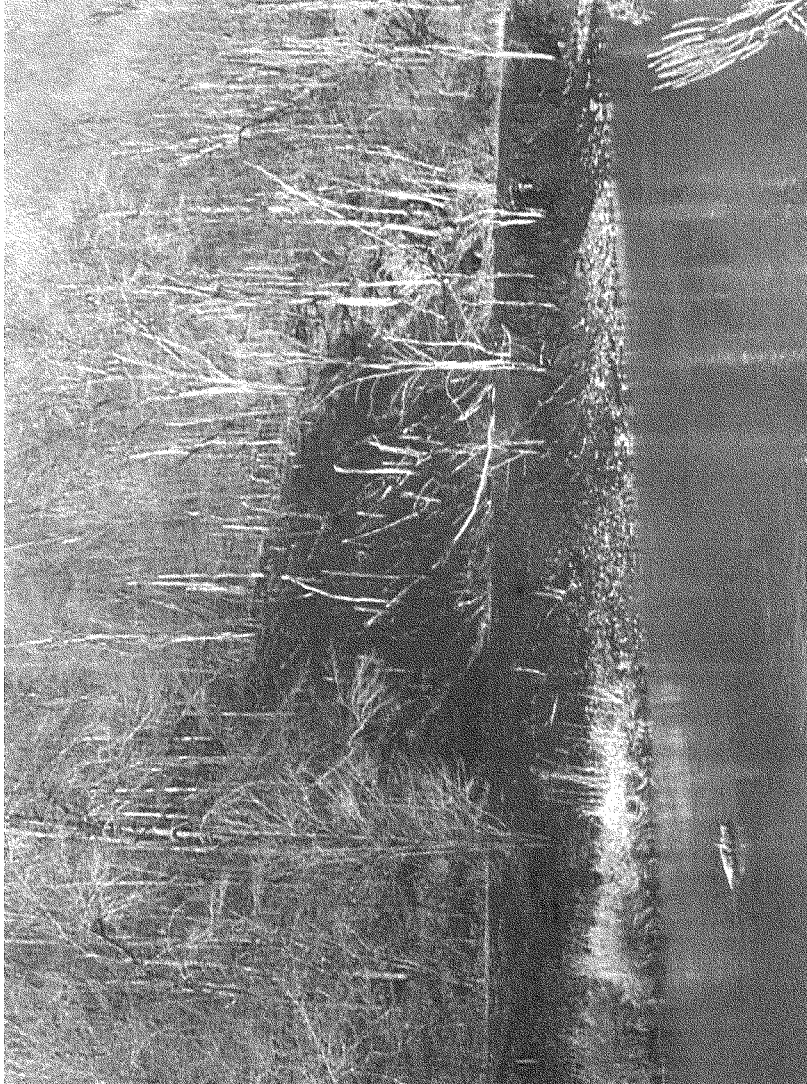
ATTACHMENT 2



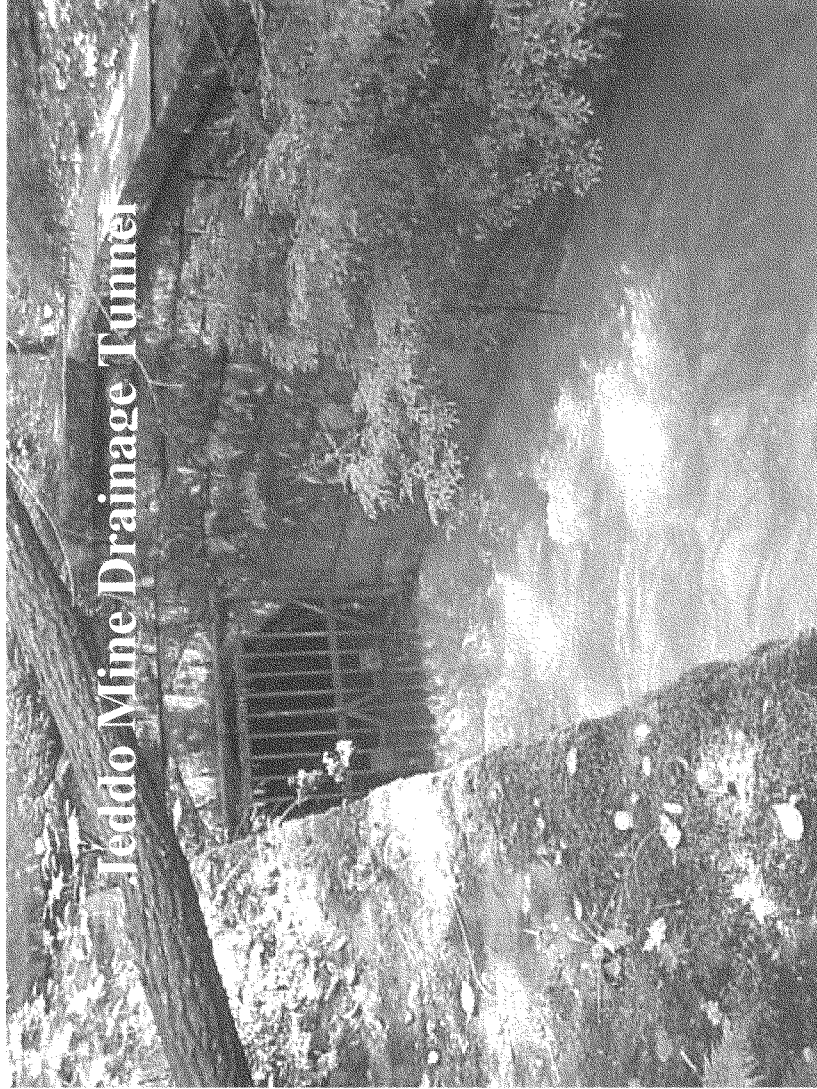
ATTACHMENT 3



ATTACHMENT 4



ATTACHMENT 5



ATTACHMENT 6

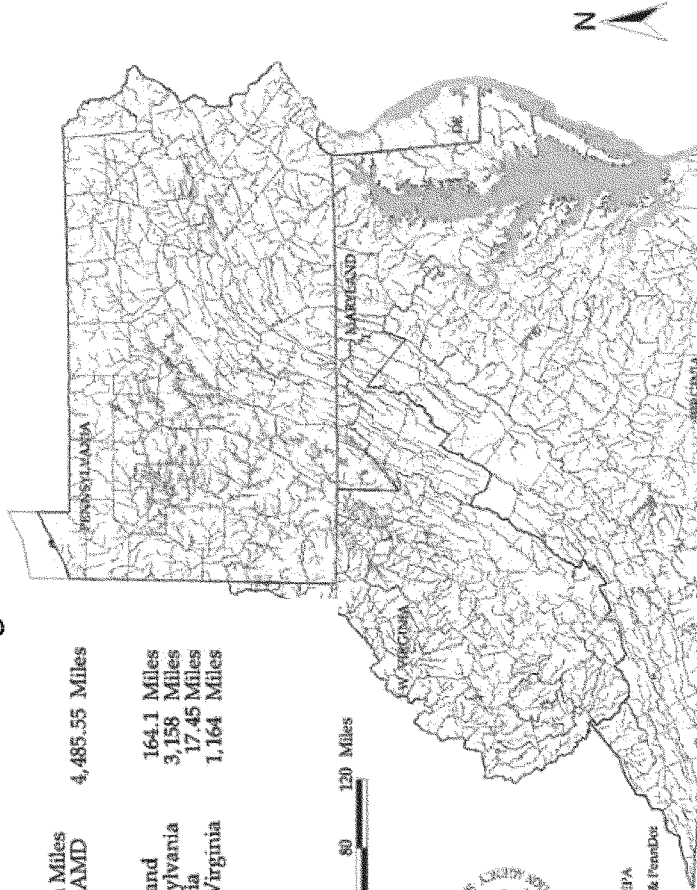
EPA REGION III **4,485 Stream Miles Effected** **By Acid Mine Drainage**

Total Stream Miles Effected By AMD	4,485.55 Miles
Maryland	164.1 Miles
Pennsylvania	3,158 Miles
Virginia	17.45 Miles
West Virginia	1,164 Miles

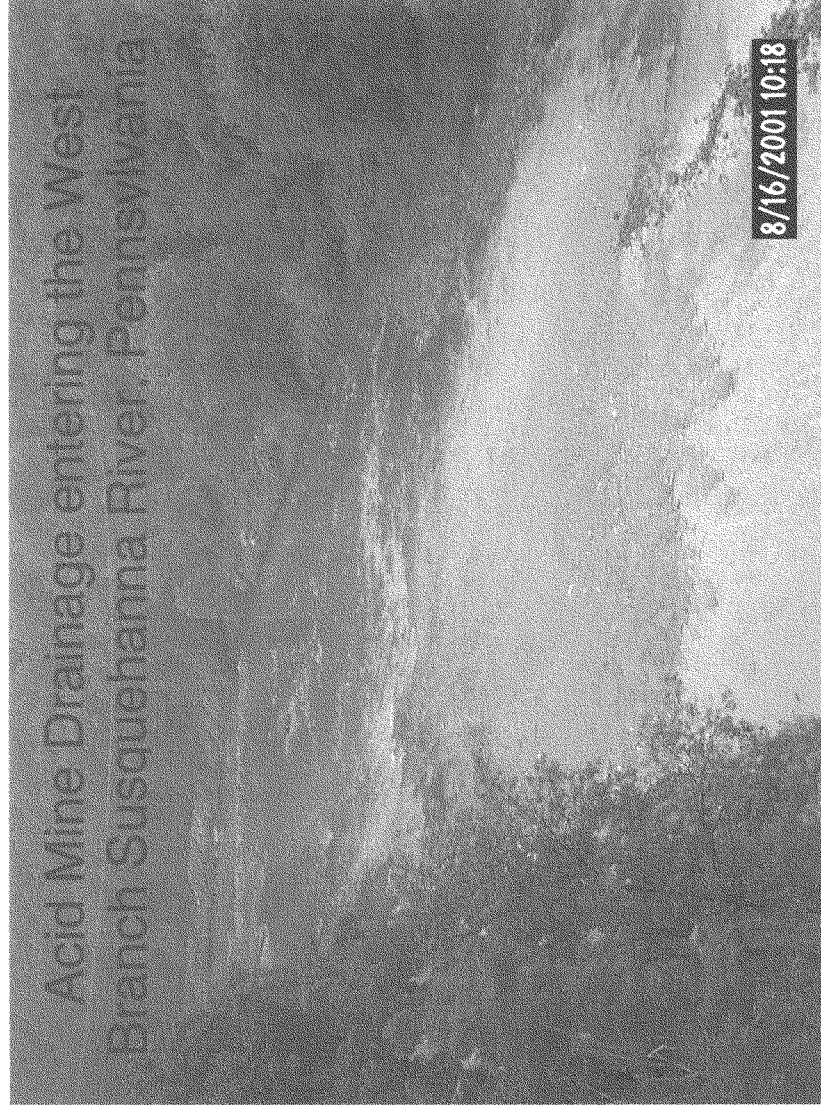
0 40 80 120 Miles



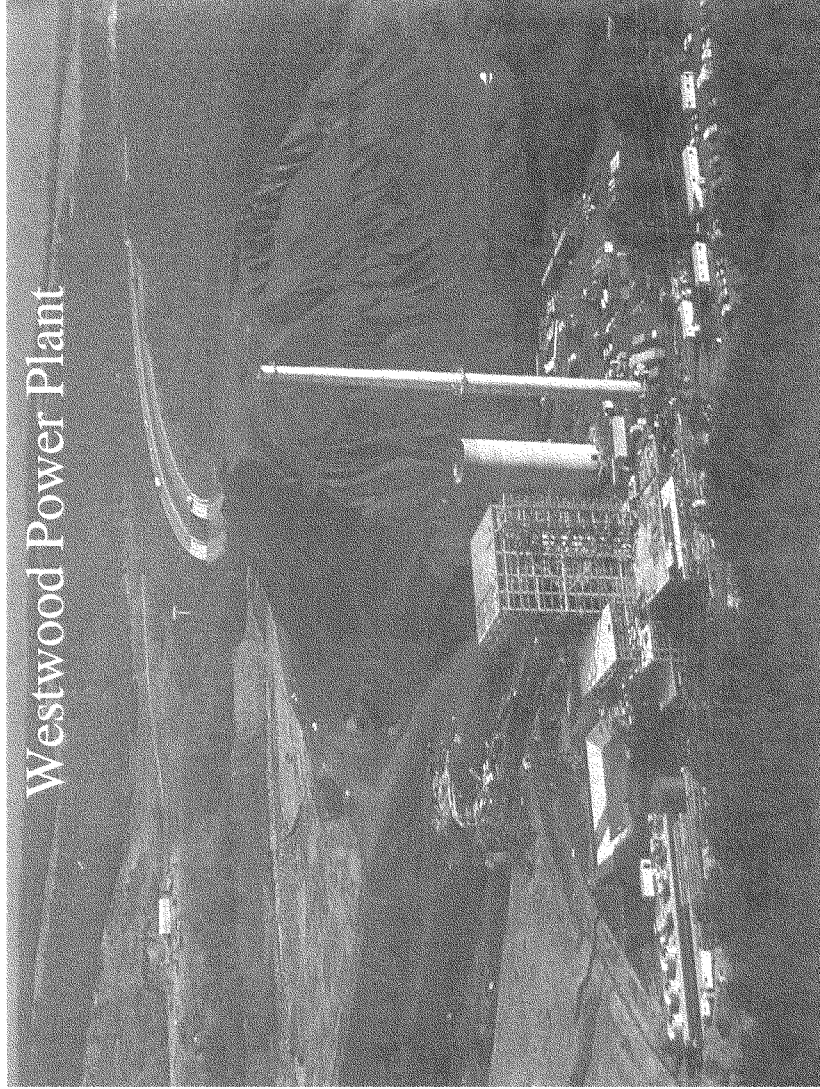
Acid Mine Drainage: EPA
 Region III 1995
 Hydrography: USGS & PennDOT
 Digital Elevation Data
 1995 Census TIGER



ATTACHMENT 7



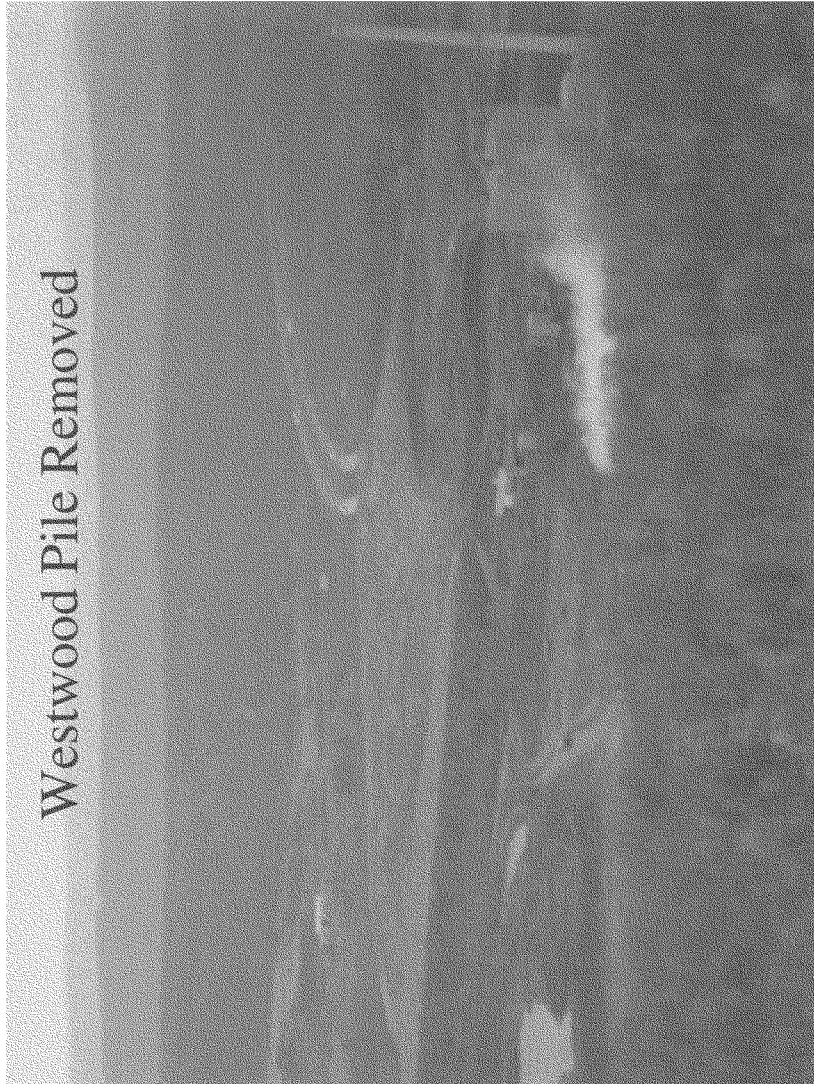
ATTACHMENT 8



Westwood Power Plant

ATTACHMENT 9

Westwood Pile Removed



ATTACHMENT 10



ATTACHMENT II



ATTACHMENT 12



Interstate Mining Compact Commission

445-A Carlisle Drive, Herndon, VA 20170
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EXECUTIVE DIRECTOR

GREGORY E. CONRAD

April 24, 2006

The Honorable John J. Duncan, Jr.
Chairman

Subcommittee on Water Resources and the Environment
House Transportation and Infrastructure Committee
B-376 Rayburn HOB
Washington, DC 20515-6762

Dear Mr. Chairman:

Thank you again for the opportunity to testify at your Subcommittee's March 30 oversight hearing on "Barriers to the Cleanup of Abandoned Mine Sites". We are very encouraged by your interest in this important matter and look forward to working with you and your staff over the coming months to secure meaningful and effective legislation addressing these barriers.

Near the conclusion of the hearing, you posed several questions for consideration by the witnesses and we would like to respond to those questions as the basis for more extensive discussions on the best legislative route for addressing "Good Samaritan" issues.

1) Whether Good Samaritan legislation is necessary. *We definitely believe that Good Samaritan legislation is needed and we assert that the best vehicle for this legislation is either an amendment to the Clean Water Act or a stand alone bill. An amendment to the existing law is preferred from our perspective, as it would result in a more focused effort and insure that any new provisions are clearly related to the current law. There are a number of reasons why Good Samaritan legislation is needed. First, the potential for incurring liability is deterring volunteers from undertaking projects to clean up or improve abandoned sites, which prolongs the harm to the environment and to the health and welfare of our citizens. These impacts also have economic impacts that are felt nationwide. Second, the universe of abandoned mine lands is so large and the existing governmental*

resources so limited that without the assistance of volunteers, it will be impossible to clean up all of the abandoned mine lands.

2) Who should be allowed to be a Good Samaritan and remediate with reduced liability? *A person, corporation, association, or governmental entity that is not legally liable for cleaning up the abandoned mine should be eligible to be a Good Samaritan. Those who have contracts to perform reclamation work, such as reclamation contractors and surety companies, should not be eligible for the protections, as they have a legal obligation to do the work.*

3) Whether, and to what extent, anyone should try to find the original responsible parties. *Under one of the laws we are familiar with, the Pennsylvania Good Samaritan Act, only sites for which no person has a continuing reclamation or water pollution abatement obligation are eligible for Good Samaritan work. Pennsylvania law is fairly clear on whether someone has the legal obligation for reclamation or treatment.*

4) Whether, in some circumstances, environmental standards should be made more flexible in order to achieve at least partial cleanup of sites. *It is absolutely critical that Good Samaritan legislation include flexible environmental standards. Some abandoned mine land problems are so intractable that it is not possible with today's technology to achieve "total cleanup". Such cleanups could also be cost prohibitive. We know that in many circumstances some cleanup can result in significant environmental improvement. Forswearing that improvement because total cleanup cannot be achieved is poor public policy and short-sighted. We also know that, in some circumstances, even where total cleanup is technically possible, at some juncture the cleanup reaches a point of diminishing returns and the money would be better spent on cleaning up other sites. In the end, some cleanup is often better than no cleanup.*

5) What and how cleanup benchmarks or standards should be applied in Good Samaritan cleanups. *Good Samaritan cleanup standards should be flexible and based on a government (state or federal) regulatory determination that the Good Samaritan efforts will result in environmental improvement. The standard needs to be sufficiently flexible to consider the economic resources of the Good Samaritan. Again, some cleanup/improvement is generally better than none. It must be remembered that a few hundred years were necessary to create these abandoned mine lands; it will take time to clean them up.*

6) Whether citizen suits should be allowed against a party acting as a Good Samaritan. *Environmental Good Samaritan protection should also extend to citizen suits. Without citizen suit protection, the potential liability to a Good Samaritan is just as great as it is for government action. Pennsylvania's Environmental Good Samaritan Act addressed citizen suits under state law, but*

could not prevent citizen suits under federal law. Consequently, this remaining potential liability has prevented some Good Samaritans projects from going forward. For Good Samaritan legislation to be effective, it must address the potential liability posed by both government action and citizen suits.

7) Whether to extend Good Samaritan protections to abandoned coal as well as hard rock sites. *The Western Governors Association (WGA) has taken the position that the proposed definition of "abandoned or inactive mined lands" could be drafted to include coal sites eligible for reclamation or drainage treatment expenditures under the Surface Mining Control and Reclamation Act (SMCRA). We agree with this assessment. Furthermore, from a political support perspective, extending Good Samaritan protections to abandoned coal mines would likely interest more eastern and mid-continent Congressmen and Senators to support the legislation.*

8) Whether to extend Good Samaritan protections to public as well as private lands. *Good Samaritan protections should extend to both public and private lands. The pollution problem knows no such boundaries and must be addressed wherever it occurs. The environment and public health and safety all benefit by cleanup of abandoned mine lands, whether public or private.*

9) Whether and what incentives should be extended to encourage Good Samaritan cleanups. *Limiting the liability of Good Samaritans is a good first step to encourage such cleanups. The effectiveness of Good Samaritan legislation could be improved if technical assistance and federal funding were also made available.*

10) Whether, in what circumstances, and by whom remining of abandoned mine sites should be allowed. *Good Samaritan legislation and remining should not be connected. They have somewhat different goals. As an example, Pennsylvania allows those who are not legally liable for the reclamation to engage in remining. Sites that have a preexisting discharge can only be remined if the applicant demonstrates and the state finds that the remining will improve or eliminate the discharge. If the remining degrades the preexisting discharge, then the mine operator is responsible to treat the pollution it caused. Remining of abandoned mine land that does not contain preexisting mine drainage is allowed, provided the operator reclaims the site to modern standards.*

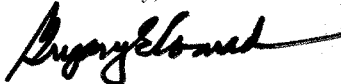
11) Whether and how to set up a funding mechanisms to pay for cleaning up abandoned mine sites. *This is a complex question with many facets to it. Some have suggested a national trust fund, similar to that under Title IV of SMCRA for coal. Others have argued for inclusion of an abandoned hardrock program as part of reform of the 1872 Mining Law. For our part, we have found that Section 319 funds have allowed states to address a number of projects to cleanup*

abandoned mine lands. We believe that this funding should be enhanced, specifically by clarifying in any Good Samaritan legislation that these funds may be used for Good Samaritan projects.

12) Who should administer a Good Samaritan program. *Good Samaritan programs should be administered by state regulatory authorities and federal regulatory authorities who understand the complexities of abandoned mine lands, as well as which sites can be improved and how to accomplish that improvement. These agencies should also be available to provide technical assistance to Good Samaritans. Given the current structure of laws like SMCRA and the Clean Water Act, we believe that the states are in the best position to administer Good Samaritan programs with appropriate oversight by federal agencies such as EPA.*

Thank you again for the opportunity to submit these supplemental responses. We look forward to working with you in the future on this important initiative.

Sincerely,



Gregory E. Conrad
Executive Director



The Environmental Action Network for the 21st Century

1200 Eighteenth Street, N.W. Washington, DC 20036

Testimony of Velma M. Smith
Senior Policy Associate, National Environmental Trust
before the
U.S. House of Representatives Committee on Transportation and Infrastructure,
Subcommittee on Water Resources

Barriers to the Cleanup of Abandoned Mine Sites
March 30, 2006

On behalf of the National Environmental Trust, I thank the Subcommittee for this opportunity to testify on the important issue of cleaning up abandoned mine sites.

The topic of this hearing is "Barriers to the Cleanup of Abandoned Mine Sites," and I know that the Committee will hear testimony about the role of environmental laws in discouraging mine cleanups. I would begin, however, by asking you not to be too quick to narrow your focus to perceptions of liability as the primary culprit behind lingering problems. Rather, we urge you to consider other factors -- factors that loom even larger in the challenge to clean up abandoned mining sites.

Consider, first, the sheer size of the universe of abandoned mine sites and the diversity of that universe -- from relatively modest areas of waste rock or small scale tailings piles to vast mining complexes. Consider also that the vast universe of abandoned mine sites keeps growing larger, even as we sit here today.

In addition, though I realize you may tell me that I'm in the wrong hearing room, we would argue that the single most compelling barrier is not regulatory but financial: Mining sites are not being cleaned up fast enough because neither the industry nor the government is contributing sufficient money to the task. The federal budget is tight, but to really address this problem, you must find a way to bring more resources to a serious cleanup effort.

We would also remind you that while fear of liability may, in some cases, give pause to true "Good Samaritans" who would otherwise venture into mine cleanup, that pause, in and of itself, may not be a bad thing when it comes to cleaning up these difficult messes. Mining sites can be not only difficult to diagnose but also enormously difficult to cure. Entered upon without solid information, with poor design or with faulty execution, cleanups can and have gone terribly wrong.

Finally, we urge you to consider that liability for both previous operators and land owners is an important factor that has been driving many cleanups. If Congress reaches too broadly to encourage the cleanup of the most easily remedied mine sites, it will put at risk the current liability leverage that leads to cleanup of enormously difficult and expensive mining messes. And if your solution brings remining operations into the definition of “Good Samaritan” actions, you may end up creating the exception to swallow the rule, removing normal, for-profit operations, which nearly always take place in old mining districts, from existing regulatory requirements.

So please, don’t look simply through the narrow prism of regulatory hurdles for cleaning up a few of the many mining problems. Look broadly at the full scope of the problem and recast your topic as “Solutions to Mining Contamination.” In that context, figure out not only how to drive more of the easier cleanups but also how to stop adding to the problem and how to address the large and seemingly intractable mining messes.

Hardrock mining is enjoying a boom. Metals prices are breaking records; exploration fever has once again hit the West; and even old operations that seemed like economic losers are attracting new attention. So now, while hardrock mining is flush, is the time to engage the industry in cleaning up its past and current operations.

A Big Problem

In 1993 the Mineral Policy Center, now known as Earthworks, assembled data on hardrock abandoned mines from state and federal agencies, private contractors and associations.¹ From this effort, they estimated nearly 557,000 abandoned hardrock mines in 32 states. Their numbers, though perhaps considered high at the time, are generally in line with other best judgments – including estimates from the Western Governors’ Association, the Bureau of Land Management and the Environmental Protection Agency.

A compilation of abandoned mine land data assembled by the Western Governors Association, for example, shows counts ranging from 150 abandoned mines in North Dakota to 100,000 in Arizona.² The WGA report cautions that different states use different definitions of abandoned mines and count mines and mine sites in different ways. It also clearly acknowledges that existing inventories are incomplete. The report’s numbers for 13 states total more than a quarter of a million.

Estimates from Federal agencies are high as well. BLM, for example, places the number of abandoned mines on lands that it administers at a low of 100,000 or a high topping half a million.³ About 5 percent of those sites – possibly more than 25,000 mines -- have caused or could cause environmental damage, according to the Bureau. The Forest Service estimates that about 5 percent of an estimated 25,000 to 35,000 abandoned mines on its lands will require

¹ Mineral Policy Center, *Burden of Gilt*, June 1993.

² Western Governors’ Association, *Abandoned Hardrock & Noncoal Mines in the West: A Partnership Report*, 1998 available online at <http://www.westgov.org/wga/publicat/miningre.pdf>.

³ US EPA, Office of Solid Waste and Emergency Response, *Cleaning Up the Nation’s Waste Sites: Markets and Technology Trends*, September 2004.

cleanup under Superfund authorities; another 12 percent of those sites are expected to require water-related cleanup using authorities other than Superfund. Excluding lands in Alaska and California, the National Park Service estimates the number of abandoned sites on its lands at 2,500.

A Varied Universe, in the West and Beyond

What types of sites are these and what types of remediation is called for? The answers run the gamut from small problems to large complexes. And though much of the focus in this discussion is on the West, where the number of sites is huge, there are mine messes in other parts of the country as well.

In some instances, the highest priority problems may be open shafts and adits that pose physical hazards to people and wildlife. These must be plugged, filled, secured or closed off.

- A motorcyclist was killed in 2003, for example, when he rode his bike over a tailings pile directly into an open mine shaft in the Red Mountain area of California.
- In Nevada, the state reports that people have died swimming in open pit lakes and suffocated after entering open mine shafts.
- Wyoming has reports of mine subsidence affecting an interstate highway, a public water line and a housing development.
- In Alaska, 500 feet of dangerous high wall was reported in a heavily used area near Juneau, and open portals and shafts found within a few hundred feet of a public use cabin in a state park
- In Oklahoma, the community has learned that a third of the small town's 400 houses sit atop or near a huge mining cavern with a probability of collapse.⁴
- In California alone, the Office of Mine Reclamation has stated that 84 percent of the state's abandoned mines—that's nearly 33,000 mines—present physical hazards.⁵

In other cases, the threats are from elevated levels of pollutants in mine wastes, contaminated soils, blowing tailings and abandoned ponds of cyanide solutions or other wastewaters. Abandoned mines, as the U.S. Geological Survey reports, may degrade water quality and aquatic resources with releases of acid drainage, seepage from tailings piles, streambank erosion and storm runoff.

Overall, the government estimates that old mines have contaminated about 40 percent of all Western river headwaters, and scientists have reported loss of fish populations and deterioration of fish health as well as groundwater contamination, including contamination of drinking water wells, all associated with continuing pollution from abandoned or inactive mines.

⁴ Omer Gilham, "Calls for Tar Creek buyouts intensify: A Corps of Engineers report brings home to residents the dangers of possible cave-ins," *Tulsa World*, February 2, 2006.

⁵ California Department Of Conservation, Office of Mine Reclamation, Abandoned Mine Lands Unit, California's Abandoned Mines: A Report on the Magnitude and Scope of the Issue in the State, June 2000.

- In Arkansas, for example, a 1996 report attributed problems in nearly 200 miles of streams to the impacts of old lead, zinc and coal mines.
- In Oklahoma, a report from that same year identified 23 lakes and streams adversely impacted from past and then present mining operations.
- In Utah an estimated 300 uranium mines have moderate to high levels of radiation.
- A 1999 Nevada report on abandoned mines notes problems with breached tailings dams spreading heavy metals and acidic wastewaters, elevated levels of contaminants including mercury, lead, cyanide and arsenic from abandoned mines, and mining-related threats to local agricultural activities and the habitat of the endangered Desert Tortoise and the Northwest Valley Fly Catcher.
- In March of 2005, a “flash report” by the Department of Interior’s Office of Inspector General reported dangerous levels of arsenic and contaminated groundwater in a growing area of Pima County, Arizona.

Solutions to these problems will run the gamut as well, ranging from removing small piles of waste rock or tailings from a floodplain or reseeded a disturbed area, to removing transformers, machinery and buildings, stabilizing large waste piles, rerouting water flows, building new retention ponds, reinforcing old dams, managing toxic lagoons, removing or covering contaminated soils.

Old and New Contributions to the Problem

Much of the discussion of abandoned mines brings to mind the grizzled prospector with mule and pick axe, faded sepia-tone images and thoughts of the Wild West. But before you assume that the nation’s abandoned mine messes all date from the 19th century, well before modern environmental regulation, consider this.

Modern-day mines are often located in historic mining areas, where mining wastes have been deposited in stream beds and other fragile areas, and where acid drainage still flows from old mine workings. In some cases, this makes it difficult to say with certainty just how much of a pollution problem is linked solely to recent activity.

In many instances, however, it is clear that modern operations not only worsen existing problems but also create new problems. Modern mine operations can cover large acreages and employ enormous earth-moving equipment. Frequently they use large amounts of toxic chemicals, and collectively they release more toxics into the environment than any other industry. Their impact on the environment is enormous – and not always according to plan.

- Perhaps the most notorious example of a modern mine gone wrong is from Colorado. The Summitville gold mine opened in 1986 and was abandoned in 1992. It became one of the nation’s most expensive Superfund cleanup sites, while the Canadian business tycoon behind the venture moved his schemes and his assets overseas. The Summitville area had a long history of mining, but the acid and cyanide drainage that killed miles of the Alamosa River were clearly connected to this faulty heap leach mine operation.

- In 1996, Canyon Resources boasted that reclamation of the northern section of its Kendall heap-leach operation was 90 percent complete, and they predicted that they would rinse out the “last traces of cyanide” through the next year. Reclamation of the mine that opened in the late 1980s is still incomplete today, and according to Montana news reports, the mining company is resisting State calls for more extensive cleanup. Canyon extracted gold and silver from the ground from 1989 until 1995. Treating the mine-contaminated water, says the State, will have to continue indefinitely.
- Near Riddle, Oregon, a now-defunct Canadian company ran the Formosa copper and zinc mine between 1990 and 1993. The company abandoned the 100-acre property in 1994, and by 1997 the system they had installed to handle acid mine drainage was no longer working. As is the case with many other mines – some reclamation was accomplished by the company before its departure, but those efforts did not stop copper, cadmium, lead and zinc from polluting some 18 miles of a nearby stream. According to the state, the contamination has “...severely harmed the ecosystem of these streams, including protected Coho and Steelhead salmon populations.”
- Idaho’s Grouse Creek mine began production in 1994, and its tailings impoundment, declared “state-of-the-art” when it was built, included clay and plastic liners and, according to a company spokesperson, exceeded permit requirements. But Hecla’s gold find wasn’t as rich as anticipated, and the company ran into processing problems. In July of 1995, EPA cited this mine near the Frank Church Wilderness for violations of cyanide, mercury and total suspended solids water quality standards. The problem: leakage from the impoundment liner. A month later, it was the pipeline carrying slurried mill wastes that caused more violations. In 1996, according to the U.S. Forest Service, another 19,000 gallon spill occurred in the mill area. The mine closed in 1997 and by 1999 “pervasive levels” of cyanide were found in Jordan Creek.

I could go on. But suffice it to say that mining’s mistakes have and will always be characterized by the mining industry as its misguided past. In the 1970’s, history included the turn-of-the-century gold rush mines as well as mine operations from the 1940s and 50s. Now, it appears, that mines from the 1960s, 70s and 80s have taken their place in “history” as well. By 2020, will the mines of today be lumped in with those “turn-of-the-century” mines that bear all the responsibility for pressing pollution problems?

From Brewer Gold in South Carolina to the Battle Mountain mine in Nevada, from Zortman Landusky in Montana to Red Dog in Alaska, modern mines have given us ample evidence of continuing pollution problems. The facts on the ground suggest that regulation -- even today -- is sorely lacking in substance or enforcement, or perhaps both. And in too many instances mining companies seek the shelter of bankruptcy courts before they meet their reclamation and cleanup obligations.

We agree with the National Center for Manufacturing Sciences: “[T]he mining sector is, from an environmental standpoint, the *least* regulated of any comparable industry sector.” (Emphasis in original.) The Center goes on to state that the lack of regulation for mining “is no chance oversight,” but actually the result of a specific legislative loophole. Their reference is to the so-

called Bevill amendment that shields the mining and mineral processing industry from federal hazardous waste rules. This hard-fought and carefully protected special deal for mine-related wastes keeps EPA from regulating wastes derived from extraction and beneficiation of minerals, even if they met established criteria for designating wastes as "hazardous."

These wastes are frequently the crux of the problem at abandoned mine sites.

EPA issued a National Hardrock Mining Framework in September of 1997, with the specific aim of improving environmental protection with coordination and collaboration across programs and agencies, but in August of 2003, the EPA Inspector General declared that it "... found no evidence that the Framework contributed to environmental improvements or protections at specific hardrock mining sites." The IG noted that the Framework's goal of protecting human health and the environment at hardrock mining sites was hampered by EPA's lack of direct regulatory authority.

In addition, as the Government Accountability Office made so clear in its August 2005 report,⁶ the federal government's cleanup burden grows as businesses reorganize and restructure to limit their future expenditures for environmental cleanups. GAO points out that "EPA has not yet implemented a 1980 statutory mandate under Superfund to require businesses handling hazardous substances to maintain financial assurances" for environmental cleanups.

Only two months earlier, the GAO also concluded that BLM's failure to obtain proper financial assurances from mining operations on federal lands has left a gap of some \$56.4 million in unfunded reclamation costs.⁷ That number, by the way, covers only 48 hardrock mines that had ceased operations by the time the study was undertaken. It doesn't cover mines that are still operating.

A Matter of Money, Lots and Lots of Money

Because abandoned mine inventories have not been completed – and indeed may never be -- it is difficult, if not impossible, to offer any certainty about the likely costs of addressing these problems. Some sobering numbers have been put forward, however.

Earthworks, working with experienced mining engineers, has predicted that approximately 15,000 mines would require cleanup of water-related problems. The cleanup tab for the full universe of abandoned mine sites, according to the group, may run as high as \$72 billion.

In January 2003, the EPA Inspector General reported that 87 sites classified as abandoned hardrock mines or mine-related sites had been placed on the Superfund National Priorities List (NPL).⁸ At the time of the IG's report, EPA's rough estimate of cleanup costs for these specific

⁶ US Government Accountability Office, "Environmental Liabilities: EPA Should Do More to Ensure that Liable Parties Meet Their Cleanup Obligations," August 2005.

⁷ US Government Accountability Office, "Hardrock Mining: BLM Needs to Better Manage Financial Assurances to Guarantee Coverage of Reclamation Costs", June 2005.

⁸ Office of the Inspector General, US EPA, Nationwide Identification of Hardrock Mining Sites, March 31, 2004, Report 2004-P-00005.

sites was about \$2 billion. Since then, more mine-related sites have been added to the list – and many more are possible candidates.

Looking beyond these few sites, EPA's Superfund office has predicted that somewhere between 7,700 and 31,000 mines will require cleanup – either under Superfund or under another program.⁹ An EPA report on the cleanup technologies, notes that the need for cleanup grows as the public looks increasingly toward rural areas for recreation and as some old mining areas are developed for primary housing or second homes. Data from several sources cited in this report indicate a range of cleanup cost running from \$20 to \$54 billion, with about \$3.5 billion of that related to Superfund designated sites.

The Bureau of Land Management estimates that cleanup of abandoned mine sites in its jurisdiction may cost as much as \$35 billion.¹⁰ Damage on U.S. Forest Service land alone would cost \$4.7 billion to fix.¹¹

How do expenditures match up against these figures? According to EPA¹², the total federal, state and private party outlays for mining site remediation have been averaging about \$100 million to \$150 million per year.

At this rate of expenditure, notes the report, only 8 to 20 percent of all the cleanup work will be completed over the next 3 decades.

No Easy Solutions

And now for the bad news. Cleaning up mining problems can be, not only expensive, but also technically challenging.

The case of the Penn Mine in California – the case that initially prompted the call to loosen Clean Water Act requirements for mining cleanups – makes the point.

The abandoned old copper mine in the Sierra Nevada Mountains was producing acid mine drainage flowing into the Mokelumne River watershed, the same watershed that provides drinking water to the East Bay Municipal Utility District. The water utility, with the best of intentions, took on what it apparently thought would be a modest project to protect downstream fish and its water source. The Utility constructed a small dam, diversion facilities and retention ponds. Unfortunately, however, the results fell short.

The ponds were not sized properly and maintenance of the structures was reportedly minimal. So the facilities – though they solved some problems – actually created additional problems at

⁹ US EPA, Office of Solid Waste and Emergency Response, *Cleaning Up the Nation's Waste Sites: Markets and Technology Trends*, September 2004.

¹⁰ Ibid.

¹¹ Robert McClure and Andrew Schneider, "More than a century of mining has left the West deeply scarred," *The Seattle Post-Intelligencer*, June 12, 2001.

¹² US EPA, Office of Solid Waste and Emergency Response, *Cleaning Up the Nation's Waste Sites: Markets and Technology Trends*, September 2004.

certain times of year. People in the community were upset and took legal action to compel more cleanup. The Utility found itself with a long-term cleanup job that it had not initially anticipated.

Was this particular “Good Samaritan” particularly inept or sloppy? Probably not.

- In 1997, a mining company in Arizona was attempting to cover a tailings impoundment with waste rock. The impoundment failed and tailings and debris moved into Pinto Creek.¹³
- In Montana, a mining company reconstructed a tailings dam that had failed. Today, the State, the Forest Service, the EPA and the community are searching for answers and money to fix this previous “fix” that is now leaking and considered unstable. The company involved in this case and dozens of others is in bankruptcy.
- A host of engineers tried to address the problems of acid drainage running through the Oklahoma lead mining district some 20 years ago. They apparently managed to keep acidic waters from returning to the surface through unplugged boreholes, and they thought they got it right with water diversions and “rerouting.” But just recently monitoring has shown high levels of lead and arsenic headed toward Oklahoma’s Grand Lake.

In other words, mining problems can be a bear to solve.

An adit may be plugged, only to blow out as water pressure increases. New seeps from a closed tunnel may open up, not at the original point of discharge, but in other unexpected areas.¹⁴ Constructed wetlands may function for a time but cease their cleaning function when they reach a point of saturation. Acid-generating rock may be encountered where none was anticipated; a season of drought, can pull groundwater into a pit lake faster than expected; storms or heavy snowmelt overwhelm the capacity of detention ponds.

These examples are offered, not to suggest that nothing can be done to abate the problems of mining, but only to caution against a “solution” that tries to fast-track decisions that should not be fast-tracked, that skims over the need for critical baseline data, that imposes unreasonable deadlines on those reviewing cleanup plans, or that skimps on oversight.

These real world lessons also remind us that time is an element to be reckoned with in mine cleanup efforts. In many cases, mining cleanups will have to be viewed as holding actions, and responsibility for long-term management must fall to someone, if not to the party that initiates cleanup. According to EPA, nearly 60 percent of the mining sites listed on the Superfund NPL are expected to require from 40 years to “perpetuity” for cleanup operations.¹⁵ Many other mine sites will require long-term maintenance and vigilance in similar time frames.

¹³ US EPA, Region 9, “Total Maximum Daily Load for Copper in Pinto Creek, Arizona,” April 2001.

¹⁴ See, for example, “The Earth’s Open Wounds: Abandoned and Orphaned Mines,” *Environmental Health Perspectives*, Volume 111, Number 3, March 2003.

¹⁵ *Ibid.*

These examples also make it clear that a directive to “do no harm” may be difficult to follow. Because things can go wrong, despite the best of intentions, we think it would be more than reasonable for any provisions that encourage “Good Samaritan” actions to also ensure against the unforeseen. Financial assurance would add an upfront cost to cleanup projects, but that cost would be a small fraction of a project’s overall cost. It could be subsidized by a bond pool or special trust, and its existence would help to ensure that the cleanup projects undertaken today do not become tomorrow’s emergency removals, that what are anticipated to be small projects do not end up draining the government’s resources for response and remediation.

Liability Plays a Useful Role

It is, no doubt, frustrating to hear of cases in which a willing Samaritan hesitates to act because he doesn’t want to become embroiled in Clean Water Act permitting, is wary of a citizen suit or fears the reach of Superfund liability. But consider that there is another side to that coin. Liability, in many instances, is driving cleanups.

In Nevada, a 3,500-acre copper mine has long been known to have unreclaimed tailings and other problems, but only in the last few years has the surrounding community learned that the old mine site has serious problems of radioactive contamination. The course has been difficult and it will take many years to clean the site, but progress on the site is being made, because the property owner is compelled by Superfund liability to proceed.

In Utah, the Kennecott case is instructive. It has been heralded as a “voluntary” effort to clean up massive amounts of groundwater, but the more than 20-year cleanup was “voluntary” only in the sense that Kennecott negotiated out and agreed to a cleanup plan -- after complaints were filed by regulatory agencies. In 1986, the State Health Department, acting as Trustee of Natural Resources as provided for under the Superfund law, filed a complaint against Kennecott Utah Copper Corporation for groundwater contamination. Superfund liability, again, drove cleanup.

In the Copper Basin of Tennessee, at the Rio Tinto mine in Nevada and in dozens of other cases, cleanup and stabilization happens, not in spite of liability, but because of it.

Congress Can Act

The problems of abandoned mines are large and difficult, and Congress should be wary of simple solutions. Any effort to “encourage” cleanups with exemptions from Clean Water Act obligations, or worse still, from Superfund liability, is fraught with difficulty.

If a “Good Samaritan” is relieved of achieving Clean Water Act standards, what standards must they achieve? Over what time frame? If a remedy fails, who bears responsibility? Who can be called upon for additional work or for maintaining treatment systems and reclamation work? Should there be a size or “class” limit on exempted projects – should the line be drawn at revegetating or removing waste piles? Should “Good Samaritans” tackle major mining complexes? What data should they have in hand to assure that they understand critical aspects of water flow and geochemistry?

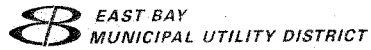
It would be nice to think that there's a responsible way to answer these questions and make these distinctions in law or by rule, but there may not be at this time. Useful generalities are hard to come by, and the wrong generalities could take us backwards rather than forwards in the quest for cleanup.

So what to do instead? We have a few recommendations.

1. Endorse EPA's efforts to use a model consent agreement to promote "Good Samaritan" projects, and draw on your own water quality expertise to craft, not a broad exemption, but a major demonstration project. Engage one or more states along with all the relevant federal agencies, allowing interested states to look on a watershed basis for those areas where they believe that modest, voluntary efforts could bring lasting improvements in water quality. One option would be to do this in the context of TMDL or Total Maximum Daily Load reviews for particular watersheds. A watershed focus can assure that the broader context is kept in mind and that individual projects do not unintentionally improve water quality for one parameter or in one location only to undermine it elsewhere. In addition, several projects within a single watershed may be able to share important baseline data and technical information. Within this context, and only within this context, allow for alternatives to the traditional National Pollutant Discharge Elimination System permits. Provide funding to get the demonstration program going, including funds to support a team of mining reclamation experts that will act in an advisory capacity to all chosen projects and to underwrite financial assurances for dealing with unforeseen problems. Assure that all projects have appropriate oversight, and require a report – say on a two-to-three-year time-frame – about successes and problems with the projects chosen. At that point, renew the effort to answer some of the questions I have just posed and, if necessary, amend the Clean Water Act to allow for new mining cleanup best practices by "Good Samaritans."
2. At the same time, look to the mining industry to help fund cleanup of abandoned mines, following the model set out for coal mine restoration under the Surface Mining Reclamation and Control Act (SMCRA). Congress should impose a tonnage fee on all metals mined from private and public land to fund a serious, long-term remediation program. Use the resulting trust fund to pay for cleanup at old sites where responsible, solvent entities cannot be found.
3. In addition, boost federal funding for cleanups and provide for coordination and sharing of funds among states, BLM, Forest Service, EPA and other appropriate agencies. By encouraging federal agencies and the states to do joint planning and to pool resources, the best expertise and capacities of many parties can be leveraged for the maximum results.
4. Engage states and federal agencies in developing adequate inventories of sites and, perhaps more importantly, selecting priority areas for voluntary cleanups and for re-invigorated enforcement-driven cleanups.
5. Direct EPA to get off the dime and issue rules for financial assurance for the mining sector, which makes such an enormous contribution to the country's Superfund burden. This duty already exists in law, so you don't have to pass new legislation. Make things happen with directions and appropriations.

6. Don't tolerate the continued creation of abandoned mine messes. Stop the creation of additional mine problems by first clearly defining "abandoned," as recommended by the National Academy of Sciences and as done under SMCRA. And begin work on legislation to set out minimum performance standards, strong financial assurance requirements and clear permitting guidelines. Have the agencies create clear requirements for operators to notify regulators of changing conditions at operating mines, and be certain that mine permits – as well as bonding amounts – are updated as conditions change. Set out monitoring and reporting requirements as well fair and firm enforcement mechanisms. Build regulatory capacity and expertise in the field with grants to support state programs.
7. Weed out irresponsible investors and operators with solid "bad actor" provisions to deny future permits or government contracts to companies that violate environmental rules or walk away from reclamation obligations. Make sure bad actors cannot hide behind corporate reshuffling and creation of new subsidiaries.
8. Deal with the most dramatic regulatory loophole for mine operations by directing EPA to establish waste regulations specifically crafted for the management of mine waste rock, tailings or other mineral-processing wastes, including wastes currently covered by the Bevill amendment.
9. Invest in research that will allow for more reliable predictions about mining's impacts on water resources, looking closely at the potential for creating acid mine drainage but also focusing on other difficult issues, such as disruption of aquifers from dewatering, mechanisms for groundwater contamination and impacts of pit lakes that refill with acids, metals and other pollutants after mine operations cease. Make sure that the best available predictive tools are used to plan cleanups and to permit mines in the first instance.
10. Learn from past mistakes with failure analyses conducted in conjunction with mine cleanups. Whenever federal dollars or enforcement authorities are used for cleanup of a mine site that operated during the mid-1980s or forward, regulators should analyze those aspects of the operation that led to a need for cleanup. As these analyses identify problem management areas – be they heap leach pads, faulty liners, pipeline breaks, unstable waste piles, poorly characterized geology or something else – regulators should act to disseminate new information on "best practices" and, as necessary, adopt new regulations to prevent repeat failures.
11. Commit to carrying out your oversight duties. This is a thorny issue, but there is much activity in the field. Congress should keep a close eye on developments, positive and negative, regarding mining and water quality.

Again, Mr. Chairman, I appreciate this opportunity to testify, and I hope that Committee members find this information and these recommendations of help. I look forward to your questions and to working with your staff on these important issues.



**TESTIMONY ON GOOD SAMARITAN LIABILITY AND ABANDONED
MINE CLEANUP**

**SUBMITTED
TO
CHAIRMAN JIMMY DUNCAN
SUBCOMMITTEE ON WATER RESOURCES AND ENVIRONMENT
COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE
U.S. HOUSE OF REPRESENTATIVES**

**PRESENTED BY
DAVE WILLIAMS
DIRECTOR
WASTEWATER
EAST BAY MUNICIPAL UTILITY DISTRICT
OAKLAND, CALIFORNIA**

March 30, 2006

Mr. Chairman, and members of the Subcommittee, thank you for the opportunity to appear before you today to discuss an issue of great importance to Western states and California in particular – “Good Samaritan” Legislation. I appear before the subcommittee as Director of wastewater services for the East Bay Municipal Utility District. On behalf of the East Bay Municipal Utility District Board of Directors and our General Manager, Dennis Diemer, I am pleased to provide you with our experiences and recommendations related to abandoned mine cleanups. Although “Good Samaritan” legislation is often thought of in conjunction with abandoned mines, it could apply to any situation involving clean-up efforts by states or other third parties who are not legally responsible for the existing conditions at a site.

THE EBMUD CASE STUDY

As part of my testimony I'd like to start by relating an example of how lack of Good Samaritan legislation resulted in some fairly significant adverse impacts to my agency in our attempt to help mitigate a significant environmental problem, that of Penn Mine which is an abandoned mine in the northern California foothills of the Sierra Nevada mountains.

Background

The East Bay Municipal Utility District (EBMUD) was formed by the California Legislature in 1921 and provides water service to over 1.3 million customers and wastewater service to over 600,000 customers. EBMUD's 375 square mile service area includes portions of Alameda and Contra

Costa counties, east of San Francisco Bay. The primary source of water supply for EBMUD is the Mokelumne River located in the Sierra Nevada mountains about 90 miles east of the District's service area. EBMUD constructed Pardee Dam on the Mokelumne River to store water for its customers in 1928 and delivers that water to the East Bay through three aqueducts.

In 1963, the District constructed Camanche Reservoir to support water supply needs and provide flood control. The reservoir also provides recreation and supports downstream fisheries. In constructing the reservoir, the District identified the Penn Mine site as a significant threat to water quality.

Penn Mine operated primarily as a copper and zinc mine from 1861 until 1953. The mine produced 82,500,000 pounds of copper, 22,200,000 of zinc, 1,200,000 of lead, 67,700 ounces of gold, and 2,150,000 ounces of silver. During the 1940's, Penn Mine was the largest producer of copper in California.

Penn Mine

Penn Mine was abandoned in the late 1950s, leaving behind approximately 400,000 cubic yards of mine waste. Rainfall and runoff produced acid rock drainage from the mine waste and resulted in discharges of low pH (2-4) water laden with elevated concentrations of copper and zinc. These discharges had historically impacted the Mokelumne River causing fish kills and long-term problems with copper concentrations exceeding water

quality objectives. Estimates of annual discharges of copper exceed 100,000 pounds.

Beginning in 1958, EBMUD began working with the Central Valley Regional Water Quality Control Board (CVRWQCB), a regional office of the California State Water Resources Control Board, to address the problems at Penn Mine. The CVRWQCB issued waste discharge requirements (WDR) to the owners of Penn Mine, and in 1964 issued a Cease and Desist Order (CDO). In 1972, revised WDRs were issued and, in 1973, a new CDO was issued. In 1977, a Cleanup and Abatement Order with notice of State Action and recovery of costs was issued. In 1978, the CVRWQCB adopted a resolution proposing remediation/abatement actions and requesting EBMUD and other agencies support the abatement actions. The Abatement Plan included:

- Building a dam to contain runoff from the site
- Constructing diversions to route upstream runoff around the site
- Constructing a series of evaporation ponds
- Installing a recirculation system to improve evaporation and maximize storage

The Abatement Plan improvements were completed in 1978 as a joint effort between EBMUD and the CVRWQCB. The Abatement Plan reduced and controlled the discharge of pollutants into the Mokelumne River and Camanche Reservoir.

Liability For Abatement Plan

In the early 1990s, the Committee to Save the Mokelumne and the California Sportfishing Alliance (Committee) filed suit to require that EBMUD obtain an NPDES permit for the discharges from the Abatement Plan improvements. The suit claimed that the Abatement Plan improvements constituted a discharge of pollutants to the waters of the US that required an NPDES permit and that the Abatement Plan had exacerbated the generation of pollutants from the site. Despite the fact that EBMUD had worked with the appropriate regulatory agency, and that the Abatement Plan provided water quality protections, the court sided with the Committee and ordered EBMUD to obtain an NPDES permit; this decision was upheld by the Ninth Circuit Court. EBMUD and CVRWQCB appealed to the Supreme Court; however, that appeal was denied.

In 1993, EBMUD and the CVRWQCB worked with EPA Region 9 on an interim plan to treat runoff from the site to further reduce pollutants; this plan was memorialized in an Order from Region 9.

Final Restoration

In 1995, the Committee, the CVRWQCB, and EBMUD agreed to work together towards a long-term solution. With the active involvement of stakeholders, EBMUD and the CVRWQCB developed a plan, and in 1997 certified an environmental impact report outlining a preferred alternative to remediate the site to pre-mining conditions. The key elements of the plan included:

- Removing mine waste
- Constructing a landfill to contain and isolate mine waste
- Restoring water courses and re-vegetation of entire site
- Monitoring water quality

The estimated costs of the plan totaled \$10 million, to be shared equally between EBMUD and the CVRWQCB. The EPA Region 9 Order was revised to reflect implementation of the plan. The plan was completed in 2000 and, based on the performance of the project; EPA Region 9 rescinded the Order in 2003.

Returning the site to pre-mining conditions reduced annual copper discharges by 98% and annual zinc discharges by 93%.

Continuing Legacy

EBMUD and the CVRWQCB have ongoing responsibility for the landfill and the restored site, including monitoring vegetation management and any emerging issues with respect to runoff or groundwater. Nationally, an estimated 550,000 abandoned hardrock mines exist, and in California, there are approximately 39,000 inactive or abandoned hardrock mines. They represent a significant source of pollutants and continue to impact water quality throughout the state. The experience of EBMUD and the CVRWQCB has had a chilling effect on "Good Samaritan" remediation efforts, resulting in no further projects being initiated.

NEED FOR GOOD SAMARITAN LEGISLATION

As can be seen from the EBMUD case study, regulatory approaches to address the environmental impacts of abandoned or inactive mines are often fraught with difficulties, starting with the challenge of identifying legally responsible and financially viable parties for particular impacted sites. In many cases the mine operators responsible for conditions at a site may be long gone. The land and mineral ownership patterns in mining districts are extremely complex and highly differentiated. The surface and mineral estates at mine sites are often severed not to mention the fact that water rights may exist for mine drainage. It is not uncommon for there to be dozens of parties with partial ownership or operational histories associated with a given site.

In view of the impacts on water quality caused by these abandoned mines and the difficulties in identifying responsible parties to remediate the sites there is a great interest in undertaking and encouraging voluntary "Good Samaritan" remediation initiatives (i.e., clean-up effort by states or other third parties who are not legally responsible for the existing conditions at a site). However, states, local government and private parties currently are dissuaded from taking measures to clean-up the mines due to an overwhelming disincentive in the Clean Water Act.

It should also be noted that Good Samaritan legislation could address situations other than pollution from inactive or abandoned mines. In the San Francisco Bay Area there have been studies that have shown that the Bay is impaired from legacy materials such as polychlorinated biphenyls

(PCBs) and pesticides such as DDT and dieldrin. It has also been documented that toxic hot spots exist in the Bay where sediment laden with these pollutants are continuing to pollute the Bay. Currently there are neither funds nor plans for addressing this significant problem which has been caused by chemicals being discharged to the Bay which have long ago been banned. Thinking even further outside of the box, Good Samaritan legislation could perhaps assist a community in finding the needed resources to help clean-up "Brownfields."

INTERFACE WITH TMDLS

The passage of Good Samaritan legislation would be a significant step forward in helping states clean-up impaired waters. I'd like to use the San Francisco Bay mercury Total Maximum Daily Load (TMDL) as an example of how this could work.

High levels of mercury in San Francisco Bay are primarily the result of mining during California's Gold Rush and a variety of contemporary sources. As part of the gold extraction process mercury was used to extract gold from gold bearing rocks and during the extraction process was released into the air and waterways. Much of this mercury washed downstream to San Francisco Bay. Approximately 26,000,000 pounds of mercury were used in gold mining operations in the 19th century. As much as 8,000,000 pounds of mercury accumulated in Bay sediment. A significant amount of this mercury came from mercury mines in the San Francisco Bay Area. These mines left a legacy of mercury pollution in piles of waste rock, surface soils, and stream sediment. Mercury is

bioaccumulative and concentrates itself through the food web ultimately resulting in unsafe levels of mercury in fish tissue of fish caught, often by subsistent fishermen, in the Bay. In humans mercury is a neuro toxin affecting the brain and spinal cord and interfering with nerve functions. It is particularly dangerous to pregnant women and small children.

The mercury TMDL report prepared by the San Francisco Regional Water Quality Control Board lists the major sources of mercury in the Bay. One of the most significant sources is runoff from abandoned mine sites. Of the 1,220 kilograms of mercury entering San Francisco Bay each year, discharges from municipal wastewater treatment plants account for only 17 kilograms per year. Being a de minimus source (less than 2 percent per year), it is widely known and accepted that if all discharges from municipal wastewater treatment plants were immediately halted there would be no discernable net environmental benefit to San Francisco Bay. Even so, the State is proposing that municipal wastewater dischargers cut back their discharge of mercury by 40 percent over the next 20 years. Although pollution prevention educational efforts and source control measures are certainly the first approach to addressing this ominous task of reducing mercury discharges, it is clear that these efforts alone will not allow municipal wastewater treatment plants to meet the stringent levels of reduction being proposed. Absent the ability to offset their discharges by pursuing more cost-effective reductions elsewhere, it has been estimated that municipal dischargers in the Bay Area will ultimately need to construct tertiary filtration facilities which would cost hundreds of millions of dollars and result in sewer fee increases for Bay Area residents on the order of \$200,000,000 - \$300,000,000 more per year.

The situation I have described for the mercury TMDL in San Francisco Bay is not an isolated example. The City of Sacramento is faced with a similar situation being a de minimus discharger of mercury into the Sacramento River and faced with the requirement for significant reductions in their mass discharge. Many abandoned mines in the Sacramento River watershed offer the potential for a more rational solution to their problem than installation of costly capital facilities which would ultimately result in negligible environmental benefit.

TMDLs are also being prepared in the San Francisco Bay Area for legacy pesticides such as dieldrin and DDT as well as PCBs. These substances have been banned for many years and thus the effectiveness of rigorous source control and pollution prevention efforts is questionable. It is known that there are many toxic hot spots in San Francisco Bay and its tributary waters which show high concentration of these pollutants in their sediments. Once again, the ability to spend limited public resources cost-effectively such that the maximum environmental benefit is achieved for the dollars spent is certainly a goal that it would seem all can support. The barriers however need to be removed.

BARRIERS TO THE GOOD SAMARITAN APPROACH

Whether it be for truly altruistic reasons, which is often associated with the "Good Samaritan" concept, or rational cost-effective approaches whereby society can achieve removal of impairments to our nation's waterways, the issue is the same; and that being there needs to be some legal protection and reasonable guidance whereby an entity can make improvements that

will ultimately reduce pollutant loading to waterways in areas where they have no legal responsibility or ownership without the fear of reprisals.

KEY PROVISIONS OF GOOD SAMARITAN LEGISLATION

The overall goal of Good Samaritan legislation would be to provide a framework in which to work to resolve the liability disincentive problem that is currently preventing many potential Good Samaritan clean-up projects from going forward. Key provisions of such legislation should include the following:

1. Provides a process to assure that proposed projects make sense from an environmental standpoint and that they will not be authorized unless there is a sound basis to conclude that they will result in water quality improvements.
2. It provides assurance that a remediating party will carry out a project as approved in an environmentally sound manner without imposing unnecessary and infeasible standard NPDES permit requirements.
3. It provides that after completion of a remediation project the remediating party can terminate its permit without continuing responsibility for remaining discharges at a site.
4. It assures that the existing legal liability of those properly responsible for discharges at a site prior to the implementation of a Good Samaritan project is not affected in any way.

OTHER CONSIDERATIONS

In addition to the key provisions enumerated above, there are other considerations that should be addressed. These other considerations could be included as part of the legislation itself or via accompanying documents describing the legislative intent or other mechanism such as policy, guidelines, or regulations. These other considerations from a municipal discharger's perspective are as follows:

1. Any initiative to move forward and clean-up a pollutant site must be voluntary.
2. The cost of the municipal wastewater discharger's efforts to clean-up a site must be stable and must be reasonably related to actual implementation cost estimates such that a "blank check" situation is avoided.
3. If the clean-up is done as an alternative to a more costly pollutant reduction effort, (i.e., treatment of the municipal wastewater) the amount of pollutant to be removed via the clean-up must be reasonably related to the amount that would otherwise need to be removed by the municipal discharger in order to meet permit limits at the plant site.
4. If the clean-up is being done as an offset, the clean-up needs to be adequately addressed in an NPDES permit or other mechanism as appropriate.

5. If clean-ups are being done as part of an offset approach, a mitigation bank is an important mechanism that could foster additional clean-up efforts.
6. Any clean-up effort must involve close coordination and participation of local, state, and federal regulators.
7. Habitat restoration as well as clean-up of a specific site should be incorporated into the Good Samaritan concept in order to maximize opportunities for environmental benefits.

SUMMARY

East Bay Municipal Utility District supports Good Samaritan legislation with the intent to eliminate current disincentives to voluntary cooperative efforts aimed at reducing water quality impacts from abandoned or inactive mines as well as other potential clean-up efforts, such as toxic hot spots, which may be pursued in an effort to offset more costly alternatives which result in little environmental benefit. We believe Good Samaritan legislation will result in immediate and significant improvement in the water quality of some of our country's most polluted water bodies. Failure to pursue this initiative would result in continued degradation for the foreseeable future of many Western streams and waterways impacted by not only historical mining activities but also legacy pollutants which have long ago been banned. We urge you to move forward with this legislation as we feel, more than ever before, the time is right and the need is great for this initiative.

**Written Testimony of Chris Wood
Trout Unlimited
Before the House Committee on Transportation and Infrastructure,
Subcommittee on Water Resources and Environment
March 28, 2006**

Thank you for inviting Trout Unlimited here to testify today about impediments to abandoned mine clean up. My name is Chris Wood. I am the vice president for conservation at Trout Unlimited.

Trout Unlimited has over 160,000 members in 36 states. We have a long organizational history of engaging in stream clean-ups and restoration projects designed to improve drinking water, fisheries, and watershed health. In fact, each of our more than 400 chapters contributes well over 1000 hours of volunteer time to stream restoration projects every year.

I'd like to talk about three things today. First, TU's efforts to help recover lands and waters damaged by coal mining with an emphasis on work we conducted at Pennsylvania's Kettle Creek watershed. Second, TU's work to restore abandoned hard rock mines in the western United States, especially in Utah's American Fork canyon. Finally, I'd like to share with you ideas we have to foster more restoration.

Cleaning up abandoned mines may be the single most important, least addressed environmental challenges in the nation. Water accumulates and leaches out of many abandoned mines. The water is often highly acidic and laden with dissolved minerals – a deadly combination for aquatic life. Acid mine drainage and heavy metals contamination, the two primary threats caused by abandoned mine sites, can render streams lifeless and pose significant human health risks for miles downstream.

Kettle Creek

Since 1977 and the creation of the Abandoned Mine Reclamation Fund, more than \$7 billion has been spent to help heal Appalachian and western coal fields. The fund is supported by a tax on coal mining operations of 35 cents per ton from surface mines, and 15 cents per ton from underground mines.

Few priority sites remain for clean-up in the western United States, and progress is being made in the East. Even with that progress, in the Appalachian region it is estimated that there are over 1.1 million acres of abandoned coal mine lands and over 9,000 miles of streams polluted by acid mine drainage, and many miles of dangerous embankments, high-walls, and surface impoundments.

TU, and countless other state and local groups are using the Abandoned Mineland Reclamation Fund and associated programs such as the Clean Streams Initiative to help heal coalfield communities.

In places such as the Kettle Creek watershed of north-central Pennsylvania, our restoration practices are being applied on a landscape level. We recently completed a 57 acre surface remediation and reclamation project to address the major source of acid mine drainage to Twomile Run, a key tributary to Kettle Creek.

In the Huling Branch, the largest tributary of Twomile Run, native brook trout are holding on in the higher elevation areas. Our work on the Huling Branch provides an example of how ecological restoration and economic opportunity can proceed hand in hand. The remediation plan involves the mining of coal that contributes to acid mine drainage that was left behind from earlier mining operations. The plan is to remove the crop coal for use in power plants, and the high quality coal reserves that supported walls and roof rock. TU and the Kettle Creek Watershed Association's follow-up reclamation work will virtually eliminate abandoned mine drainage.

TU is working with the Commonwealth of Pennsylvania, the Office of Surface Mining, and other partners to extend this combination of active and passive treatments, habitat restoration, and community education to the entire West Branch of the Susquehanna watershed. The West Branch drains 20 percent of the Commonwealth. The Governor is hoping this project will serve as an engine to drive economic opportunity and revitalization in the region.

The restoration of the Huling Branch and the Kettle Creek watershed would not have been possible without the existence of programs such as the Abandoned Mineland Reclamation Fund and the Clean Streams Initiative. Nonetheless, funding for these programs is not sufficient to address the full scope of the problem, and increased funding is essential to maximize the potential of abandoned coal mine clean-up.

Increasing funding available for the Clean Streams Initiative and enacting the long-term reauthorization of the Abandoned Mine Reclamation Fund would go a long way to helping communities by providing quality, family-wage jobs and revitalizing depressed areas while improving the quality of life for people.

American Fork

TU believes that every watershed we restore brings important benefits, regardless of the overall scope of the problem. From a fisheries and watershed health perspective, the issues associated with abandoned gold and silver mines are very similar to those of coal mines. Unfortunately, the geographic scope of the problem is staggering. EPA estimates that abandoned hard rock mines degrade nearly 40 percent of all western headwater streams. Estimates for cleaning up the problem range from \$36-72 billion. The enormity and scope of the problem, have led to a collective sense of futility that has fostered inactivity in many places.

Like hundreds of other similar sites, the American Fork was heavily mined for silver, copper and gold. Active mining essentially ended in the early 1900s. Tailings, waste piles, and smelter wastes leach heavy metals including lead, zinc, arsenic, and cadmium

into the stream. In 2003, we decided to initiate a restoration of American Fork Creek. The American Fork is one of the State of Utah's most popular outdoor recreation areas. The area is located between Provo and Salt Lake City and more than 1.2 million visitors travel to the American Fork every year. The American Fork was also identified by the state of Utah as important to the recovery of Bonneville cutthroat trout.

By 2003, the Forest Service had reclaimed most of the mines on public land in the watershed, but those that remained were largely on private lands owned by the Snowbird Ski and Summer Resort.

The Pacific Mill site was identified by the federal government as the single largest source of pollution in the watershed. Our first priority was to complete the removal of mine spoils on private lands in the watershed. TU entered into an Administrative Order of Consent with EPA that is allowing us to move the tailings and piles of into a repository which will be sealed and revegetated. The repository will prevent water from leaching heavy metals from the waste materials thus improving the water quality in the river,

Lessons Learned

The two greatest needs that we can identify for increasing the scope and scale of abandoned mine clean-up is the lack of a dedicated funding source and the creation of a federal permitting process that encourages Good Samaritan restoration projects. Lack of money and fear of liability are significant barriers to local restoration efforts.

In nearly every watershed where abandoned mines affect drinking water and human health, degrade fisheries, or increase water filtration treatment costs, there is an almost limitless amount of energy from TU chapters, watershed groups, and communities to recover the health of their lands and waters.

Unleashing that energy in a positive way requires two basic elements: money and a permitting process. Funding is an overriding concern. Our experience in both Kettle Creek and the American Fork demonstrate that if you come to the table with resources, state and federal agencies can help to make things happen. In Pennsylvania, we rely heavily on federal funding through the Abandoned Mineland Reclamation Fund and other programs such as the Office of Surface Mining's Clean Streams Initiative. In addition, Pennsylvania has spent hundreds of millions of dollars in state money on watershed restoration through its Growing Greener program.

On the American Fork, we were able to use a grant from the Tiffany & Company Foundation and funding that Senator Bennett helped to make available through the Natural Resources Conservation Service to finance the clean-up of the Pacific Mine site. Cleaning up private lands on the American Fork is not overly expensive. The on-the-ground restoration will cost approximately \$200,000. Hundreds, if not thousands, of other cleanups are possible if funding sources can be identified.

In the coalfields, the federal Abandoned Mineland Reclamation Fund has provided over \$7 billion for recovery of areas affected by coal mining. That program needs long-term reauthorization, and programs such as the Clean Stream's Initiative need increased funding if we are to be able to maintain and increase the rate of recovery of Appalachia's mountain communities and streams. It is important to point out that there is no analogue to the Abandoned Mineland Reclamation Fund for gold and silver mining.

In fact, every single commodity developed off public lands – coal, wood fiber, oil, gas, and forage – has dedicated funding to pay for cleanup associated with production. The only commodity that lacks such a dedicated fund is hard rock minerals. As a result, organizations such as ours are dependent on cobbling funding from an array of private, state, and federal sources to get work done on the ground.

We pride ourselves on being entrepreneurial and nimble in identifying funding for abandoned mine cleanup. Our capacity to match funding with restoration projects, however, is dwarfed by the scale of the problem. Communities and organizations such as ours could get a lot more done if the resources were more readily available and in more obvious places than they are today.

The second impediment to making progress on the ground is the lack of a clear permitting process that allows for Good Samaritans to initiate cleanups. The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and Superfund are outstanding tools for holding polluters and other potentially responsible parties accountable for their actions. But on many of the sites where we work, there is no potentially responsible party, or the area doesn't rank high enough on the priority list to justify federal funding.

TU is still learning how to navigate the permitting and liability provisions of the Clean Water Act and CERCLA to facilitate clean-ups without risking liability that could jeopardize our financial future. The Clean Water Act regulates the discharge of pollutants into the waters of the United States. CERCLA provides broad federal authority to respond to releases of hazardous substances that endangered public health or the environment.

Trout Unlimited strongly supports these laws that are essential to clean water and healthy fisheries. The Clean Water Act, for example, was essential in prompting the restoration of Pennsylvania's Little Juniata River, which used to run black from industrial discharges. It is now an outstanding wild trout fishery.

CERCLA, for its part, is the reason that EPA, the State of Montana, ASARCO, and others were able to reach agreement on the removal of the Milltown Dam. As a result, within two years, the confluence of the Clark Fork and the Blackfoot rivers will be free-flowing and clean.

As important as they are, however, these laws are largely focused on holding polluters accountable for their actions. When those polluters are long gone, our experience is that

initiating hard rock reclamation projects is often problematic. Using existing tools to facilitate clean-up by pure Good Samaritans sometimes feels like pounding a square peg into a round hole. We are making progress, however, and hopefully the pace of our progress will continue.

The State of Pennsylvania has passed Good Samaritan legislation that facilitates abandoned mine clean up by limiting the liability associated with a well done reclamation. The State actively works with community groups to provide technical and financial resources, and has spurred dozens of cleanups.

Relative to hard rock mining the road is a little more complicated. After 12 months of negotiations, we were able to develop an Administrative Order of Consent (AOC) with EPA that protects TU from a liability perspective in a number of ways. Fundamentally, the AOC is designed to make TU's only obligation completing the actions required by the AOC and the associated work-plan, and eliminating any long-term liability for further work or clean-up costs at the site after completion of the tasks required by the AOC.

By arranging for the disposal of toxic mine waste, TU risked becoming a potentially responsible party, or "PRP" under CERCLA. CERCLA essentially has a standard of "if you touch it, you own it" relative to liability. It makes all PRPs at a site jointly liable for clean-up costs. The AOC deals with this by giving TU a covenant not to sue from EPA, which protects TU from any future enforcement action by EPA related to the site.

If at some later date EPA chooses to hold a PRP responsible for clean up costs, the AOC protects TU from being sued by that PRP for the costs of the cleanup. The AOC also caps TU's liability in the event that there is a problem during implementation of the project, and EPA decides to step in and complete the work itself. Normally, when EPA steps in to finish a clean-up for a party, that party is responsible for all of EPA's costs in completing the work. This protection is critical, as TU and many other would-be Good Samaritans do not have the financial resources to make an open-ended commitment of funds in the event of a problem.

Finally, the AOC obviates the need for TU to obtain multiple permits for its work on the site. Under CERCLA, no additional federal, state, or local permits are required for a clean-up. Under the AOC, TU does not have to obtain other environmental permits that might be required under state or federal law so long as it complies with a specific set of "applicable or relevant and appropriate regulatory requirements" drafted for the site.

In summary, the EPA and TU worked out a plan for completing the clean up and for complying with applicable regulatory requirements on the American Fork site. Once we complete the cleanup to the specifications of the plan, TU walks away. Too often the Clean Water Act and CERCLA are seen as impeding this kind of agreement.

Our belief is that our AOC provides a model that can be widely replicated across the landscape and alleviate many, if not all, of the liability impediments to cleaning up abandoned mines. We never would have completed the AOC without the involvement of

the EPA Office of Water and Administrator Johnson. Such extraordinary interventions shouldn't be required for projects as small in scale as the American Fork. Now that the first one is complete, we expect future AOCs will be easier to complete. It is also important to remember that the American Fork project is relatively simple – more complicated projects on the ground could pose more complicated regulatory issues and concerns that did not arise on the American Fork.

Administrator Johnson initiated a Good Samaritan Initiative to make the type of agreement we reached through our AOC more straightforward. Our position is that whether it is through new legislation or the creation of a new permitting system at EPA under existing law, there is a lot of good work that can be done to improve the quality of people's lives and the health of our lands.

Thank you for inviting me to testify today.